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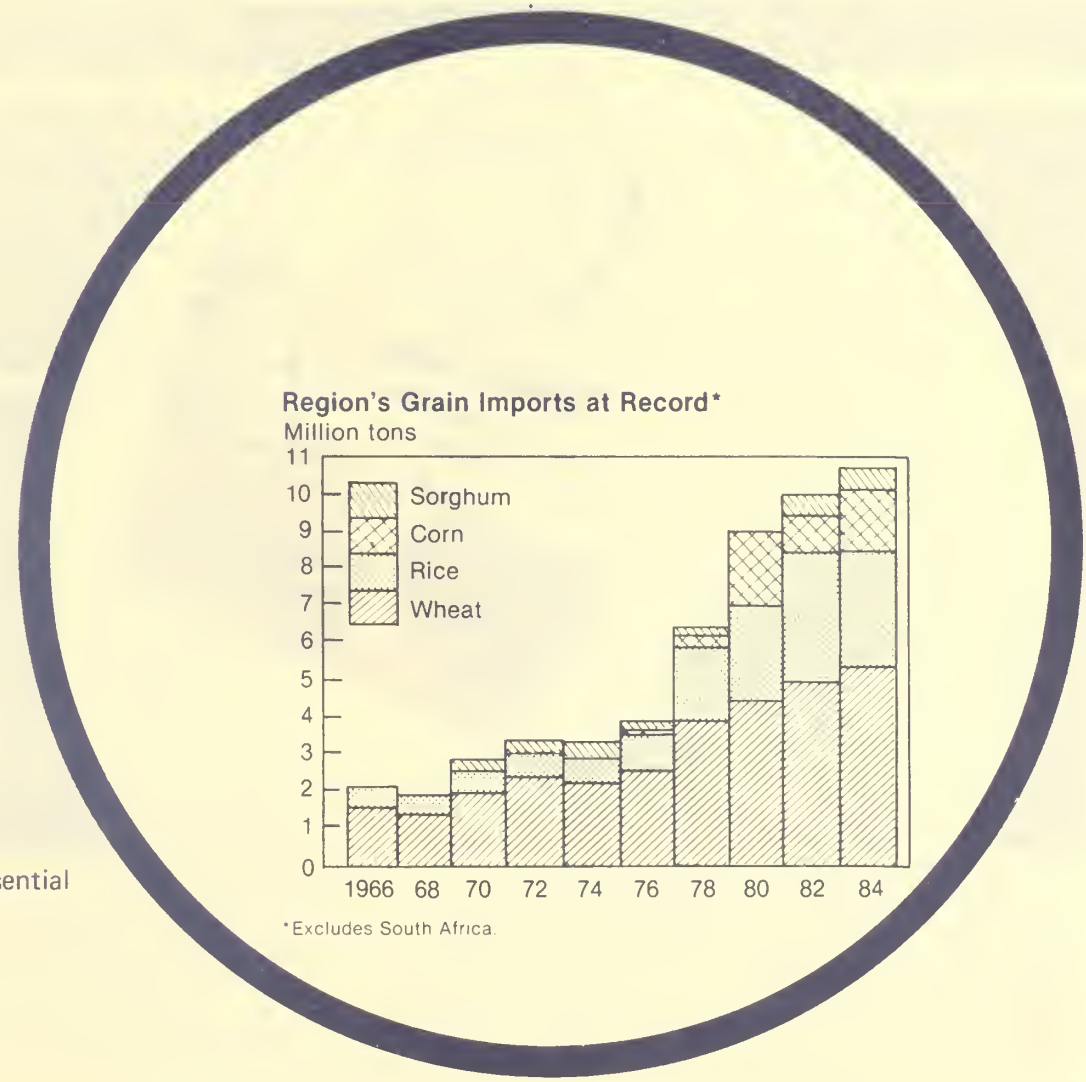
Sub-Saharan Africa

Outlook and Situation Report



Wheat and Rice Become Essential in African Diet, page 29

CONTENTS

Situation Coordinator
Michael E. Kurtzig
(202-786-1680)

Principal Contributors

Mary Burfisher
Brian D'Silva
Stephen Haykin
Nancy McKaig
Margaret Missiaen
Peter A. Riley
Stacey Rosen
Shahla Shapouri
Michael A. Trueblood
Lawrence Witucki

International Economics Division, Economic Research Service
U.S. Department of Agriculture, Washington, D.C. 20250

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The outlook for 1985 agricultural production in Sub-Saharan Africa is mixed. Where drought reduced 1984 output in Southern Africa and Kenya, some recovery is expected. In coastal West Africa, 1985 harvests will likely fall from 1984's good crops, because of lower rainfall. In the Sahel and much of East Africa, the main rainy season has just begun and it is too early to forecast. Even if weather improves, though, other disruptions will slow recovery in Ethiopia and Sudan, two of the countries hardest hit by the 1983 and 1984 droughts. Both face shortages of seed, draft animals, and implements, and populations in both have been displaced by famine and warfare.

Sub-Saharan Africa's economic crisis will persist in 1985, with austerity measures and economic stabilization programs continuing in a number of countries, including Sudan and the Sahel countries. To the extent that farm production increases, some countries will enjoy economic growth. For many, exports will be up because of higher production of export crops last year. However, prices for many Sub-Saharan cash crops, such as tea, coffee, and cocoa, are expected to be lower, while weak prices for other primary commodities will continue.

Debt rescheduling will again be required for some countries. The low commercial import capacity of some of the region's major importers, such as Ethiopia and Sudan, implies that food aid will continue large.* Despite big food aid shipments, total U.S. agricultural exports to the region in 1985 may decline because of improved output in South Africa, last year's biggest market, and competition from other suppliers.

In 1984, the region's per capita agricultural and food production both increased by 3 percent, but did not recover to the levels of the mid-1970's. Widespread and severe malnutrition continued in several areas suffering from drought, civil strife, or both. Sudan and Ethiopia experienced the most severe production shortfalls. Famine, livestock losses, and warfare in these countries drove masses of refugees across borders. Most of the Sahel had poor harvests for the second consecutive year. Drought was most severe in Niger, Chad, and Mali. Livestock losses have increased nomads' dependence on outside food and financial assistance in many countries.

In response to the famine, international donors allocated unprecedented amounts of food aid to the Sub-Saharan countries. However, as of mid-June, the major ports of the Horn and West Africa were badly congested by arriving food aid backed up because of inadequate internal distribution. Getting this food to the people most in need poses considerable difficulty because of poor transportation networks.

In coastal West Africa, good rains in 1984 generally raised agricultural output, led by good crops in Nigeria, the region's largest producer. In the Ivory Coast, coffee production will recover sharply in 1984/85 from last season's disastrous harvest.

In Southern Africa, improved rainfall during the 1984/85 growing season has boosted output of most crops. Only Botswana and South Africa had rain significantly below normal. Zimbabwe and Zambia are harvesting bumper corn crops, which will allow Zimbabwe to resume exports and make Zambia self-sufficient in corn. In spite of small production gains in Mozambique, food aid needs will remain large. South Africa's 1985 production is up for the main summer crops, especially corn, sorghum, oilseeds, and cotton, but livestock output may stagnate because of weak demand.

U.S. agricultural exports to Sub-Saharan Africa rose to $1.3 billion in 1984, 38 percent above 1983. The increase was led by South Africa's 2.5 million tons of corn imports, which boosted U.S. export value to that country by 94 percent, to $481 million. Exports to Nigeria, usually the leading U.S. market, remained near $350 million. While wheat and flour exports to Nigeria rose 19 percent, the value of U.S. rice exports continued to plunge, as Thailand took over this large rice market.

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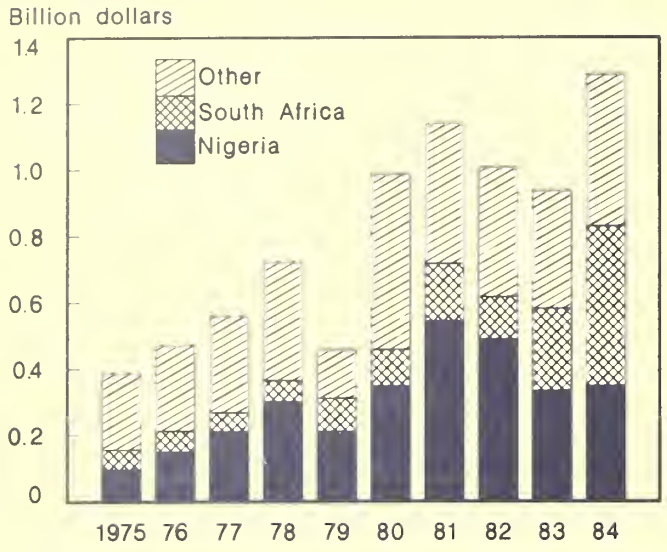
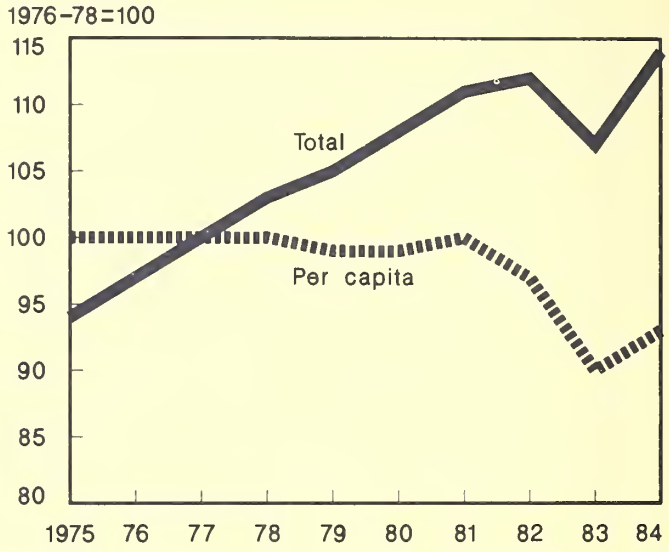
* For an assessment of food needs in Sub-Saharan Africa, see *World Food Needs and Availabilities, 1985* to be published by ERS in July.

U.S. Agricultural Exports to Sub-Saharan Africa



Sub-Saharan Africa: Index of Agricultural Production



WEST AFRICA

The Sahel

Drought Affects Most Countries

Poorly timed and distributed rainfall during 1984 resulted in a second consecutive year of poor harvests in most countries of the Sahel. Total cereal production in the eight Sahel countries 1/, which have a combined population of 34.8 million, declined 10 percent in 1984 to 4.4 million tons. This follows a 10-percent decline in 1983.

Senegal and Cape Verde were exceptions, as agriculture in these countries recovered from serious drought in 1983. Cereal production in Senegal increased 35 percent to 706,000 tons, and peanut production increased to 630,000 tons--both still below the 1981-83 average. Government peanut purchases for crushing and export fell below last year's drought level, partly because a 20-percent retail price hike for peanut oil induced many Senegalese farmers to crush and sell their own crop. Cape Verde's chronic drought eased somewhat in 1984, resulting in a marginal increase in output of corn and beans, the country's staple foods.

1/Burkina, Cape Verde, Chad, Gambia, Mali, Mauritania, Niger, and Senegal.

Drought was severe in Niger, Chad, and Mali. Grain production declined by more than 25 percent in Niger, to 1.3 million tons, and herd sizes were reduced. Chad's cereal output fell nearly 40 percent, to 300,000 tons. Production of cotton, Chad's most important export crop, declined 31 percent from the bumper 1983 harvest. The third consecutive year of drought in Mali reduced cereal output by 5 percent, to 900,000 tons.

Cereal production in Burkina fell to 1.1 million tons, slightly below last year's low level, as drought devastated crops in the densely settled Central Plateau region. Average harvests in the normally surplus southern region helped offset some of the deficit. Mauritania's cereals repeated last year's disastrous production of 20,000 tons as drought continued in the Senegal River basin, the main agricultural area. Gambia's production fell below normal for the second consecutive year due to poor rain distribution, pest infestation, and poor seed quality.

Cereal Imports at Record; Distribution a Problem

Because of the drought, the gap between food output and consumption is widening in 1985. The region's 1984 cereals output will meet only 67 percent of the 1985 consumption requirement of 6.5 million tons. Shortages are

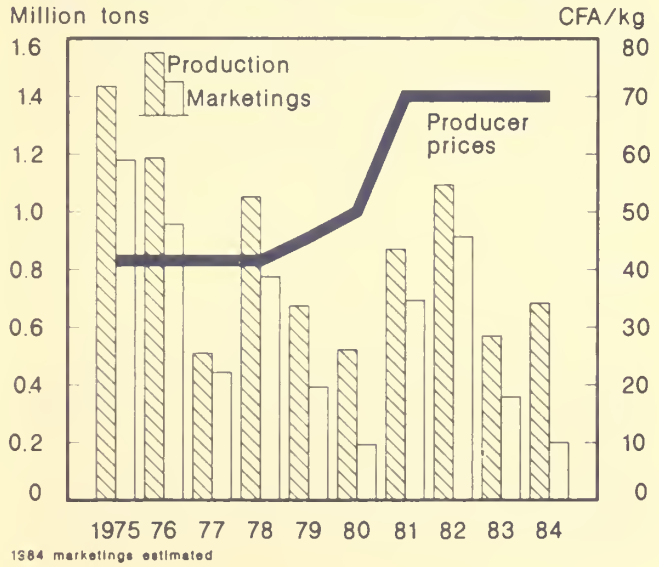
most severe in Burkina, Chad, Mali, Mauritania, and Niger. Cereal imports by the Sahel region will rise 22 percent in 1985 to 2.1 million tons, nearly half of which will be concessional. Port congestion, poor road and railway conditions, and the limited availability of trucks keep food from being delivered promptly to deficit areas.

Export Performance Mixed in 1984

Rainfed agriculture is the leading sector in the Sahel, employing 80 to 90 percent of the population and contributing significantly to export earnings and GDP. Because output is highly vulnerable to weather conditions, performance of the Sahelian economies is subject to considerable annual variation. Poor harvests in 1983 caused gross domestic product (GDP) to weaken in most Sahel countries in 1984. GDP declined 4.1 percent in Senegal in 1984, 3.6 percent in Mauritania, and 2.6 percent in Niger. Gambia's GDP showed no growth in 1983/84.

Export performance in 1984 was mixed. The low volume of peanut exports by Senegal and Gambia was largely offset by higher world prices. Increased cotton exports from Chad, Burkina, and Mali boosted foreign exchange earnings, and iron exports from Mauritania rose sharply. Livestock exports from Burkina rose, but this reflected increased offtake in response to the drought. Trade balances improved throughout the region as most of the Sahel countries reduced nonfood imports.

Senegal Peanut Production, Marketings, and Producer Prices



Imports were lowered by a combination of government efforts to restrain import demand and economic problems that reduced demand and investment.

Sahelian exports are not well diversified; one or two commodities account for most of each country's export earnings. Declining terms of trade during 1978-82 demonstrated the vulnerability of Sahelian economies to world market conditions. Since 1983, however, rising world prices for most of their exports have partially offset rising import prices, and helped generate improved terms of trade (except for Niger, whose uranium export earnings continued to decline).

Countries Pursue Economic Reform and Stabilization

The Sahel countries confront complex and long-term constraints to their efforts to meet the basic needs of their populations and to achieve economic growth and development. Chief among these are institutional and policy imbalances, declining per capita food production, and heavy debt-service burdens.

All of the countries have undertaken significant structural adjustments, including producer and consumer price reforms, elimination or reform of government agencies, austerity budgeting, and the reduction and realignment of investment toward directly productive projects. The International Monetary Fund (IMF), the World Bank and, increasingly, bilateral donors have played important roles in supporting these reforms, many of which have been undertaken despite the hardships of the 1983 and 1984 droughts.

Mauritania, for example, devalued the ougiya by 26 percent during 1984/85, tightened its fiscal and monetary policies, and reduced planned public investment by 44 percent. Consumer prices for cereals were increased 25 to 34 percent in January 1985, with plans to eliminate consumer subsidies by 1987.

In Mali, cereals marketing has been liberalized to increase the role of private traders. The move has been accelerated by market forces, as official producer price increases have been outpaced by the sharp rise in private-sector cereal prices since the 1983 drought. In response to food shortages in

Producer prices in the Sahel

	1980/ 81	1981/ 82	1982/ 83	1983/ 84	1984/ 85	1985/ 86
	CFA/kilo 1/					
Rice						
Burkina	63	66	68	74	--	--
Gambia	510	510	510	510	700	--
Mali	35	50	55	60	65	--
Mauritania	10	12.5	12.5	12.5	12.5	14
Niger	55	70	85	85	--	--
Senegal	41.5	51.5	51.5	60	66	85
Corn						
Burkina	45	50	55	60	--	--
Gambia	490	490	390	390	390	--
Mali	35	45	47.5	50	50	--
Mauritania	11	13	13	15	21	--
Senegal	37	47	47	50	60	70
Millet/sorghum						
Burkina	45	50	50	60	66	--
Mali	35	42	45	50	50	--
Mauritania	8.5	13	13	13	15	21
Niger	50/50	70/55	80/70	80/70	--	--
Senegal	40	50	50	55	60	70
Peanuts						
Gambia	460	500	520	450	620	--
Senegal	50	70	70	70	70	90

1/ Except that Gambian prices are in dalasis/ton, and Mauritanian prices are in ougiya/kilo.
-- = Not available.

Sources: IMF, Banque Central des Etats de l'Afrique de l'Ouest.

1984, the official retail price hike anticipated for 1984 was deferred to 1985.

Senegal dismantled its cereals marketing agency in 1980, and sweeping policy changes have been introduced since 1984. The "New Agricultural Policy" of 1984 centers on increasing cereals production to achieve self-sufficiency. In 1985, Senegal plans to reduce the state's role in the production and marketing of peanuts, a move prompted by the disastrous effect of 1984's price policy on Government peanut purchases. Policy changes include raising the peanut producer price and reducing Government provision of seed stock and fertilizer. In conjunction with an IMF stabilization program, retail food prices increased by 23 to 50 percent.

Niger adopted an Interim Consolidation Plan for 1984/85 that changes development plans in view of increased financial constraints. More emphasis is placed on investment in directly productive sectors, and greater private sector investment is encouraged.

Since 1982, Gambia has pursued IMF-supported stabilization policies that have included currency devaluation, retail price hikes, and curtailed development expenditure. Discussions are currently underway to reduce the disparities in retail and producer prices between Gambia and neighboring Senegal. Grains and peanuts were believed to be moving into Senegal during 1984/85 in response to its relatively higher prices, exacerbating food shortages in Gambia.

Debt and Low Farm Productivity Are Persistent Problems

Institutional and policy reforms have been important in reducing public deficits and new foreign debt, and removing disincentives in the agricultural sector. Less tractable are the problems of declining per capita food production, urbanization, and mounting repayment obligations on previously contracted debt.

Although the region's cereal output remained relatively steady over the past decade, accelerating population growth in the Sahel implies declining per capita food production. Population is currently expanding at about 3 percent annually, compared with an average 2.2 percent in 1969-71. The index of per capita cereals production for the region averaged only 82 during 1982-84 (1976-78=100). Corn output has kept pace with population growth, but per capita output of millet, sorghum, and rice has declined significantly. An exception is Niger, for which this year is an anomaly in a generally favorable trend of per capita cereal production.

Region's Import Dependency Rises

Declining per capita cereals output has been accompanied by urbanization, which is a response to low farm productivity and sizable rural/urban income differentials. In Mauritania and Niger, urbanization is accelerating as the nomadic herding sector collapses.

These trends mean that the region is increasingly dependent on food imports. Imports as a percentage of annual consumption rose from an average of 8 percent during 1970–72 and 12 percent during 1976–78 to 33 percent in 1984. Increased dependence on food imports strains the region's financial resources and increases the need for food aid. Gambian food imports in 1984, for example, equaled 18 percent of its GDP. In 1984/85, food aid will account for 88 percent of cereal imports in Cape Verde, 75 percent in Chad, 60 in Mali, 51 in Burkina, 84 in Mauritania, 36 in Gambia, 29 in Senegal, and 65 in Niger.

The region's external debt problem will continue to constrain economic growth this decade. Heavy borrowing during the late 1970's--to finance infrastructure and projects that generally did not contribute directly to domestic production--is now being experienced as a crushing debt burden. In 1984, foreign debt represented 185 percent of GDP in Mauritania, 113 percent in Mali, 97 percent in Senegal, and 42 percent in Burkina. Debt service obligations that have become insupportable have mostly been rescheduled. Debt-relief and standby credit from the IMF are supporting the efforts of Sahel countries to stabilize internal and external economic imbalances. Debt-service obligations are projected to rise for most countries through the next 1 to 3 years, but to decline thereafter as the effects of current stabilization programs begin to be felt.

Low agricultural productivity and debt imply that institutional and policy reforms need to be accompanied by long-term strategies to address constraints to growth. In the long term, higher farm productivity should underlie the objectives of price policy reform to raise rural incomes, reduce rural/urban income differentials, and stem greater dependence on food imports. Agricultural research and improved infrastructure, especially better delivery of inputs, are needed to raise the productivity of rainfed agriculture in this region.

Institutional reform conserves resources by reducing inefficiencies, but public institutions are likely to continue to have an important role in leading infrastructural and research efforts. In addition, development depends on continuing imports and investment to support growth in production and consumption, despite current balance-of-payments pressures. This is likely to require more concessional food and rescheduling or cancellation of outstanding bilateral debt. [*Mary Burfisher, 202-786-1680*]

Cameroon

Economy Rebounds

Cameroon's economy showed renewed vigor in 1984, after a year of slowed growth. The return of normal rainfall (except in northern Cameroon), after 2 years of drought, increased output of food and cash crops. World prices for most of Cameroon's agricultural exports rose, and oil export earnings increased as a larger export volume offset a decline in world prices. Real GDP increased 6.5 percent in 1983/84, compared with 4.8 percent in 1982/83.

Cameroon's rich and varied natural resource base and relatively stable political environment have enabled it to maintain strong economic growth for over two decades. Growth in real GDP averaged 2.8 percent annually during the 1960's and 1970's, accelerating to an average of 8 percent during 1980 to 1984 due to the production and export of petroleum. Cameroon is a middle-income country, with an average per capita income of $829 in 1983/84. Real personal consumption expenditure grew 5 percent in 1983/84 on a per capita basis.

Cameroon nevertheless confronts many of the same development issues as its neighboring Sub-Saharan countries. In particular, growth in agricultural output has been outpaced by population growth, with the index of per capita food production in 1984 declining to 93 (1976-78=100). With some annual variation, earnings from traditional agricultural exports (cocoa, coffee, wood), which currently account for about 15 percent of foreign exchange earnings, declined from 1978 to 1983. Both volume and world prices dropped. Industrial output and employment has declined since 1982, reflecting drought-induced shortages of agricultural raw materials, rising production costs, low product prices set by the Government, poor management, and slack demand.

Cameroon has pursued prudent fiscal and development policies to address its long-term

economic problems, using oil revenues to finance the broad-based development of nonoil sectors, primarily agriculture. Producer prices--for export crops and rice--have increased annually since the late 1970's despite falling world prices in most years, and at a pace faster than inflation. In 1983, President Paul Biya introduced important "New Deal" policy initiatives, which include: restructuring and privatizing the country's parastatals, increasing incentives for local and small businesses through subsidized credit and other programs, rigorously enforcing customs laws, and encouraging foreign investment.

Oil revenues have provided ample financing for the country's ambitious development plans. However, oil production is believed to have peaked this year, and reserves could be exhausted by the end of this century. With the nation's considerable endowment of natural resources, the major constraints to development are human, institutional, and infrastructural.

Traditional Agriculture Still Dominant

Results of Cameroon's 1984 agricultural census show that traditional agriculture remains the most important sector of the economy. Seventy percent of Cameroon's population of 8.5 million lives in rural areas, and nearly 90 percent of these households are engaged in traditional agriculture. Furthermore, 25 percent of urban households continue to carry on some traditional farming activities in urban areas. The modern agricultural sector employs about 60,000 people.

There are sizable regional differences in farm income. Per capita farm income is higher in the cocoa- and coffee-producing regions of the south ($260 in 1982) than in the Western Highlands or the semi-arid northern provinces (as low as $160). Rural incomes are much lower than the national average of $880 in 1982, which encourages migration to urban areas. With the rapid development of the oil sector, agriculture's role in the economy has declined. In 1983/84, agriculture accounted for 20 percent of GDP, compared with 38 percent in 1979/80. In 1983/84, agriculture generated less than 20 percent of export earnings of $2 billion, compared with 41 percent in 1979/80.

Good Harvest in 1984; Export Crops Rebound

Normal rainfall in most of Cameroon following 2 years of drought increased agricultural output in 1984. Total cereal output rose 11 percent to 896,000 tons. However, continued drought in the north reduced millet and sorghum output in that region, causing localized food shortages.

Good weather and an ample supply of inputs increased cocoa production 13 percent to 120,000 tons in 1984/85. But, exports in 1985 are expected to increase only slightly from 1984's 98,000 tons, to permit rebuilding of stocks. Stocks were drawn down during 1984 to maintain exports when domestic production fell and world prices rose. Some of this year's output increase may be due to the Government's efforts to revitalize the cocoa sector, which accounted for 7 percent of 1982/83 export earnings. Revitalization is being done through replantings, higher producer prices, and subsidized inputs. Productivity in cocoa production has stagnated because of aging plantations, plant disease, and low returns to farmers.

In 1984/85, coffee production nearly doubled to 127,000 tons. Robusta production has trended up sharply in recent years, benefiting from development of earlier maturing tree varieties and improved phytosanitary measures. Arabica production has stagnated, reflecting the lower producer price relative to Robusta, and declining productivity due to diseases, pests, and aging plantations. Over the past decade production of both has declined relative to the food crops with which they are intercropped, as food prices have risen faster than coffee producer prices. In 1982/83, coffee accounted for 7 percent of export earnings.

Mixed Trends in U.S.-Cameroon Trade

Agricultural trade between the United State and Cameroon declined 19 percent in 1984 to $5.3 million. Lower tobacco, sugar, and dairy product exports from the United States accounted for most of this decline, and could in part reflect the effects of Cameroon's increased domestic production of refined sugar and processed milk products. However, U.S. feed grain exports rose 70

percent to $617,000 in 1984, vegetable product exports nearly quadrupled to $314,000, and oilseeds and rice exports also rose sharply. U.S. imports from Cameroon declined 25 percent to $20.1 million, due to falling U.S. purchases of coffee and tobacco.

In 1984, a bilateral investment treaty (BIT) was negotiated that guarantees most-favored-nation status to U.S. investors, and establishes procedures for the transfer of capital and profits, expropriation, and the settlement of disputes. The BIT and Cameroon's new investment code provide encouragement for increased U.S. trade and investment in Cameroon.
[*Mary Burfisher, 202-786-1680*]

Ivory Coast

Economy Poised for Recovery

Throughout the 1960's and 1970's, the Ivory Coast's real economic growth averaged more than 6 percent a year, and by 1981 the nation ranked third in gross national product (GNP) among Sub-Saharan countries. In recent years, however, the pace of economic activity has slowed, with GDP declines during 1982-84. Real GDP fell by almost 5 percent in 1984, following declines of 4 percent in each of the previous 2 years. The lingering effects of the 1983 drought continued to influence economic developments in 1984. Export earnings were based on sales of the poor 1983/84 cocoa and coffee crops.

By the end of 1984, however, there were signs of improvement: rescheduling of external debt, forecasts of good coffee and cocoa harvests, and a marked increase in the quantity of hydroelectric power as a result of abundant rainfall. Increases in the world price of coffee and cocoa mitigated the effects of lower export volumes. Industrial output, curtailed by the shortage of electricity during the first half of the year, picked up during the second half. Crude oil production in 1984 stabilized at the 1983 level of 1.1 million tons, about 25 percent below projected output. Even so, production of about 23,000 barrels a day (bd) from the Ivory Coast's two fields is sufficient to cover nearly 90 percent of domestic demand.

Ivory Coast's debt-service ratio, which had risen to 43 percent in 1983, dropped to 25 percent in 1984 as a result of rescheduling. Under the Paris Club Agreement, $275 million of debt service due in 1984, equivalent to all of the principal and half of the interest, was rescheduled. In early 1985, an agreement was also reached with the London Club of commercial creditors on the rescheduling of $500 million of principal repayments due in 1984 and 1985. Furthermore, $100 million in new funds were granted. This is the first time that an African country has obtained new funds during a debt rescheduling.

In addition, the World Bank has made available the second installment of a structural adjustment loan, and the IMF approved a 12-month standby facility. This flow of new money has enabled the Ivory Coast to start paying arrears on debts due to local creditors, which should in turn lead to the injection of funds into the economy.

Cocoa Crop Reaches Record

The 1984/85 cocoa harvest is forecast to reach a record 500,000 tons, surpassing the record set in 1981/82 by 10 percent. The increased output is due to nearly ideal weather during the growing season and an increase in the producer price from 350 CFA to 375 CFA per kilogram (437 CFA=$1 in 1984). The quality of the crop is also improved over last year, when many of the beans were undersized. The larger beans command higher prices on the world market.

The Government is anxious to improve the quality of Ivorian cocoa, which compares unfavorably with the superior Ghanaian crop. A recent decision to cut the number of licensed cocoa and coffee buyers by a third is a major step to improve quality. Cutthroat competition among too many buyers chasing too little cocoa and coffee has resulted in producers' being persuaded to sell their crops before the beans were properly dried and cured.

With good weather, Ivorian cocoa output is likely to continue to increase. About 25 percent of the trees are too young to be productive now and only 15 percent are over 20 years old. This indicates that the Ivory Coast will be a major player in the negotiations for a new cocoa agreement this year. The old agreement failed to support prices because neither the Ivory Coast, the

largest producer, nor the United States, the largest consumer, participated in it.

Coffee Yields Declining

Coffee production is also expected to recover sharply in 1984/85 from the previous year's disastrous harvest. Output of 265,000 tons would be three times last year's level, which was the smallest in 30 years. The current harvest is still 100,000 tons below the record of 1980/81, despite an increase in the producer price from 175 CFA to 190 CFA per kilo of coffee cherries. Yields are declining because of aging trees; 40 percent are more than 20 years old. The Government has instituted measures aimed at regenerating the coffee plantations through pruning and increasing the rate of new plantings.

The Ivory Coast's International Coffee Organization (ICO) export quota is 250,000 tons. In 1983/84, coffee exports declined by only 60,000 tons to 200,000 in spite of the sharp drop in production. At the beginning of the 1984/85 season, stocks were drawn down to only 53,000 tons. However, the quality of the beans exported, from both the 1983/84 crop and stocks, was lower than usual. The exportable supplies of green coffee in 1984/85 are estimated at about 215,000 tons.

Ivory Coast: Balance of trade, 1980-84

	1980	1981	1982	1983	1984
	Million dollars				
Exports					
Cocoa	643	446	462	419	451
Coffee	920	857	604	530	975
Petro.	0	0	294	239	233
Other	1,446	1,433	1,084	905	933
Total	3,009	2,736	2,444	2,093	2,592
Imports					
Agric. products 1/	435	457	396	356	310*
Petro.	556	531	469	343	308
Other	1,619	1,074	975	809	696
Total	2,610	2,062	1,840	1,508	1,314
Trade balance	+399	+674	+604	+585	+1,278

1/ Customs basis, c.i.f. *Estimated.

Two Sugar Operations Closed

Following the temporary upsurge in the world sugar price in the early 1970's, the Government embarked on an ambitious program to develop a national sugar industry. In 1982/83, Ivorian sugar production peaked at 187,000 tons, compared with a local demand of about 100,000. With exports under quota agreements amounting to only 15,000 tons to the United States and 2,000 to the EC, about 70,000 tons had to exported at world market prices.

In 1983, average production costs were estimated at about three times the depressed world price, and in 1984, nonquota exports fell to about 30,000 tons. Given the poor sugar price prospects, the Government decided in March 1984 to close the two least efficient complexes (Katiola and Serebou) to free resources to improve productivity at the four other complexes.

Government Policies Encourage Food Production

Food production increased sharply in 1984; the index, which includes cocoa, was up 16 percent over 1983. Improved weather was the major factor, but Government policies also played a part. These aim at progressively reducing the Government role in agricultural production and making price policies rational. Actions taken include:

- handing over responsibility for coconut and oil palm marketing to Palmindustries, and recruiting a private consortium to strengthen the management of this company;
- restructuring money-losing agro-industries;
- increasing producer prices for all major export crops, and raising the consumer price of rice to foster domestic production of food crops;
- phasing out fertilizer subsidies;
- turning Government-owned rice mills over to the private sector.

A 36-percent increase in rice output is partially attributable to the 33-percent

increase in the producer price, to 80 CFA per kilo. The present retail price, 160 CFA per kilo, is about 15 percent higher than the import parity price. With the present price structure, the levy on imported rice more than covers the subsidy on domestically produced rice. While the Government hopes to achieve rice self-sufficiency in a few years, 1984 rice imports remained high at 374,000 tons. However, the Government actually reported 1984 rice imports of only 280,000 tons, compared with 450,000 in 1983. This discrepancy may reflect 1983 purchases which arrived in 1984. The good 1984 rice harvest will largely be consumed in 1985 and should be reflected in lower imports this year.

Outlook Favorable

In 1985, because of the much larger volumes, export earnings for coffee and cocoa will rise even if world prices decline. In early 1985, the Ivory Coast had sold an estimated 315,000 tons of the 1984/85 cocoa crop and contracted to sell 300,000 tons of the 1985/86 crop at good prices. The value of 1984 cocoa exports more than doubled, because of higher prices and a large concentration of exports during the last quarter of the year following the earlier-than-normal 1984/85 crop.

Total cocoa and coffee earnings could exceed $1.5 billion in 1985, assuming that the effect of lower world prices will be offset by improved quality. The boom in coffee and cocoa export revenues is not likely to continue, though, because world prices are falling and below-normal rainfall in April and May 1985 is likely to reduce 1985/86 output.

The country's debt-service ratio will remain high and further rescheduling is likely, despite favorable prospects for 1985 exports. The sharp rise in the value of the dollar has exacerbated the country's debt crisis. About 48 percent of the Ivory Coast's $7 billion foreign debt is in dollars, with the exchange rate hitting 500 CFA per dollar in early 1985, compared with 211 CFA per dollar in 1980.

The exchange rate also affects the country's trade. While 1984 exports increased 42 percent in CFA terms, the value in dollars was up only 24 percent. Imports, on the other hand, fell in dollar terms, but remained constant in CFA. The Ivory Coast is by far the most important Sub-Saharan supplier of agricultural products to the United States. Purchases amounted to more than $400 million in 1984, almost all coffee and cocoa. U.S. sales to the Ivory Coast remained small, less than $8 million. Rice accounted for 80 percent. [*Margaret Missiaen, 202-786-1680*]

Ivory Coast: Grain imports by suppliers, 1980-84

	1980	1981	1982	1983	1984 2/	1980	1981	1982	1983	1984 2/
	1,000 tons					Million dollars				
Wheat										
France	183	209	171	208	225	42.6	39.9	32.8	37.1	38.0
U.S.	0	2	3	1	0	0	.8	.8	.2	0
Canada	0	2	2	2	--	0	.6	.4	.7	--
Other	1/	1/	1/	1/	--	1/	1	1/	1/	--
Total	183	213	176	211	230	42.6	41.3	34.0	38.0	39.0
Rice										
Thailand	0	40	136	45	20	0	15.2	37.6	12.2	--
Pakistan	31	112	1	270	123	12.0	42.3	5.0	65.1	--
Burma	44	67	72	1/	9	15.9	24.7	21.6	1/	--
China (PRC)	47	0	52	20	200	16.9	16.0	14.8	3.8	--
U.S.	14	6	29	3	7	5.1	5.2	11.1	2.1	2.3
Other	32	110	50	44	15	11.8	25.4	14.0	11.1	--
Total	168	335	357	383	374	61.8	128.7	104.1	94.3	90.0
Corn										
Total	16	24	6	3	5	3.2	5.7	1.1	.8	1

1/ Less than 500 tons or $50,000. 2/ Partially estimated. -- = Not available.

Nigeria

Economy Stabilizes

Nigeria's economic situation in 1984 was bleak, as foreign exchange became increasingly tight and businesses continued to retrench. The decline leveled out, however, and real GDP dropped by 1 percent, compared with a 6-percent tumble in 1983. The satisfactory performance of the petroleum and agricultural sectors helped to break the slide.

Increased petroleum production more than offset the lower prices. Export earnings from oil climbed to more than $11 billion, compared with $10 billion in 1983. Output averaged 1.4 million bd--up from 1.3 million the previous year. Production peaked at 1.7 million bd in December. This level continued during the first quarter of 1985 despite an unofficial quota of 1.45 million bd. Production apparently dropped sharply in May as U.S. demand declined. The slowdown occurred just before a Dutch auditor arrived to monitor Nigerian output. Spot market prices of Bonny Light grade petroleum fell to $26.70 per barrel in May--almost $2 below the official price. Average export unit value has declined in each of the last 4 years.

Debt-Service Burden Increases

The vulnerability of Nigeria's external accounts to movements in the world oil market is evident from recent developments in its balance of payments, which moved from a $4.5-billion surplus in 1980 to a $6.4-billion deficit 1982. Under the impact of strong fiscal adjustment and tight administrative controls, the deficit was reduced to .3 percent of GDP in 1984, compared with 5.7 percent in 1983.

Nigeria had a small positive trade balance in 1984 for the first time since 1980. The Government has allocated less than $5 billion to imports for 1985; the rest of anticipated export earnings will go for debt service. Nigeria's total debt-service payments rose from $1.1 billion in 1982 to $3.5 billion in 1984, when they accounted for 30 percent of export receipts. The debt-service burden is expected to peak in 1985 at $4.1 billion, equivalent to almost 36 percent of expected export earnings. While Nigeria is expected to pay the full amount of debt service due in 1985, it is unlikely that imports can be held to $5 billion--only half of the 1984 level. Increased imports will put pressure on the Government to borrow and possibly come to terms with the IMF.

Agricultural Output Rebounds

Nigerian agriculture reversed its downward trend in 1984, when it recorded increases of 12 percent for food and 20 percent for cash crops. Three things contributed to the increase: improved weather, the return of large numbers of ex-farm hands because urban employment opportunities declined sharply, and the early supply of fertilizers and pesticides. Nigerian grain production increased 28 percent in 1984 over the drought-reduced output of the previous year. The harvest of wheat, rice, corn, sorghum, and millet was estimated at 9.6 million tons. Production of root crops--cassava, yams, and cocoyams--also increased. Production of cash crops, mainly cotton and cocoa, improved but remained below the average of the previous 5 years.

Imports Drop Following Drought

The continuing foreign exchange shortage forced the Nigerian Government to tighten import restrictions again in 1984. Supplier data indicate that grain imports fell 6 percent to 2.2 million tons, well below the record 2.6 million imported in 1982. Declining world prices for most grains reduced Nigeria's foreign exchange costs about $100 million, to less than $400 million.

Despite lower grain purchases, wheat imports reached a record 1.7 million tons, with 97 percent coming from the United States. Bread has become a key staple in southern cities--a role once filled by more expensive rice. Rice imports dropped sharply from 700,000 tons in 1983 to about 400,000 tons in 1984. High prices and short supplies of rice forced many consumers to substitute traditional staples. The foreign exchange savings on rice contributed significantly to the improved trade balance.

Over the last 2 years, corn imports have fallen to about 100,000 tons from a peak of 350,000 in 1982, and the poultry industry has been severely hurt. Almost all of the

Nigeria: Grain imports by supplier, 1980-84

Commodity	1980	1981	1982	1983	1984 1/
	1,000 tons				
Wheat and flour	1176	1517	1605	1498	1700
U.S.	1005	1205	1424	1317	1617
E.C.	72	237	68	20	5
Canada	28	1	0	42	45
Other	63	74	113	120	33
Rice	400	601	651	700	400
U.S.	190	402	343	124	22
Thailand	197	198	186	488	190
Pakistan	0	0	0	0	172
Other	13	1	122	88	16
Corn	168	293	345	60	100
U.S.	162	282	289	40	87
Thailand	3	6	53	5	1
Argentina	0	0	0	5	12
Other	3	5	3	10	0

1/ Partially estimated.

domestically produced corn (1.8 million tons in 1984) is white corn for human consumption, while yellow corn is imported for feed. Under the pressure of import restrictions, though, this pattern has been changing and local corn is increasingly used for feed. In addition, some yellow corn is also being grown locally. The shortage of feed corn and continued high feed prices have reduced commercial poultry flocks to about half their 1983 peak. In addition to reducing corn imports, Nigeria has diversified its suppliers, and U.S. exports fell from almost 300,000 tons in 1981 and 1982 to 40,000 in 1983. Thailand also supplied corn to Nigeria during the early 1980's. While U.S. exports rose to 87,000 tons in 1984, Argentina and Indonesia also shared in the market.

U.S. agricultural exports to Nigeria increased 4 percent to $349 million in 1984. Wheat continued to be by far the most important item. However, purchases included some items, such as barley and seeds, which the United States has not traditionally supplied to Nigeria.

Policies Attempt
To Reverse Agricultural Decline

While the new Nigerian Government has maintained most of the agricultural policies of the previous regime, consideration is now being given to ways of making those policies more effective. New attempts are being made to understand the forces driving Nigerian agriculture. Performance of the sector in the last decade has been undermined by disincentives in the wake of the oil boom. The oil shocks of the 1970's accelerated the shift of resources out of agriculture. Symptoms included migration to cities, tightening rural labor supply, and decline in the production of export crops such as cocoa and peanuts. All these factors combined to greatly lower the profitability and other incentives to invest and work in agriculture.

Trade and exchange rate policies which could have been used to support agriculture instead created a hostile environment for producers. On the export side, Nigeria's principal cash crops were heavily taxed. Since the late 1970's, farm costs plus administrative expenses of the commodity boards have risen above export prices at existing exchange rates. Even the exports of cocoa now have to be subsidized. Producer prices, although above world prices, are described by farmers and the commodity boards as being inadequate to induce the rehabilitation investments which are necessary. Starting in 1983 there has been some improvement in incentives to farmers, under the influence of drought and restrictions on grain imports.

On the import side, the Government has strongly favored consumers over producers by permitting or by itself organizing the import of cheap foreign foods, especially grains and vegetable oils. During the period of budgetary crisis since 1982, the Government has applied quantitative restrictions through licenses, which have raised farmgate prices of the same and competitive crops.

However, the real beneficiaries of these restrictions were the traders who secured the scarce licenses. Enormous trading profits collected as the commodities passed from the National Supply Company (NSC), which handled most of the bulk imports, to the local shopkeepers. While the new Government is trying to reduce profits of middlemen, old practices continue in some areas.

Other small policy adjustments have been undertaken, and more efficient implementation is beginning to emerge. Agricultural policy continues to have two thrusts:

- small farmer support programs, in conjunction with World Bank programs,

with services ranging from inputs and extension to marketing;

- Government-sponsored large-scale water resource development projects and integrated farms. The Government has encouraged private participation in these farms. Under the new regime, some shift in emphasis seems to be occurring, with more of the Government's own efforts going into small farmer programs, while the private sector increases its role in large-scale and parastatal operations. The 1985 budget confirmed the priority position of agricultural development; the agricultural allocation increased by 28 percent to 22.5 percent of the total.

High Producer Prices Do Not Increase Sales

Producer prices in Nigeria are among the highest in Africa and in many cases above the world market price at official exchange rates. However, free-market prices are above even this level, as indicated by the small purchases of the Commodity Marketing Board. For example, the guaranteed price of wheat was increased to $520 a ton for the 1984/85 season. The cost of imported U.S. wheat is less than $200 per ton.

Retail food prices have fallen about 5 percent between June 1984 and June 1985, based on a market basket of goods purchased in Lagos. This largely reflects the effects of the good 1984 harvest. The official selling price of imported rice has been maintained at N35 per 50-kilo bag. The free market price, at which most rice is purchased, has fallen from N200 a bag in early 1984 to N120 in early 1985.

Nigeria: Prices and purchases by commodity boards

	Farm gate price	Official producer price			Purchases	Share of prod.
	1982/83	1982/83	1983/84	1984/85	1983	
	--------$/ton---------				1,000 tons	Percent
Wheat	NA	406	392	520	11.2	--
Rice, paddy	798	580	560	650	.7	1/
Rice, milled	NA	864	834	775	NA	--
Corn	841	305	294	468	113.8	6
Sorghum	493	319	308	468	NA	--
Millet	479	335	323	468	NA	--
Beans	1,175	525	507	780	NA	--
Cocoa	NA	1,885	1,960	1,950	114.6	73
Peanuts	741	653	630	780	0	0
Cotton	NA	740	784	910	58.9	100

1/ Less than .1 percent.
NA = Not available.

Imports Unlikely To Increase

Assuming a normal harvest in late 1985, Nigeria's total agricultural imports are not likely to increase much above the $1.5 billion estimated for 1984. Declining rice imports are likely to offset increasing wheat purchases. Prices for these commodities may drop further in 1985. Coarse grain imports are harder to predict, especially corn. Feed millers are keeping pressure on the Government to increase 1985 import licenses. Feed purchases are likely to be more diversified, including barley, sorghum, and oilseed meals.

The wheat milling industry has fared well in obtaining import licenses, receiving an allocation of about 10 percent of all available foreign exchange in 1985. Other suppliers have entered the market in 1985. Underpricing the United States by $30 a ton, Argentina made some sales in early 1985. The Canadian Wheat Board is also talking with the Nigerians about wheat purchases.

Countertrade Negotiations Halted

After concluding countertrade agreements worth nearly $2 billion, Nigeria in May called a halt for 3 months to assess the viability of its strategy. Deals already signed with Brazil, France, and Austria are expected to be followed by one with Italy. Agricultural products covered under these arrangements include sugar, cotton, soybeans and possibly feed grains. [*Margaret Missiaen, 202-786-1680*]

EAST AFRICA

Horn of Africa

Famine Takes Heavy Human Toll

Food shortages became widespread in the Horn of Africa during 1984/85, as crop production fell sharply. Drought, pests, and civil wars combined to reduce food supplies

and hinder access to food in much of this region. Sudan and Ethiopia experienced the most severe production shortfalls. In Somalia, production of food grains increased although distribution problems perpetuated food shortages. Famine, livestock losses, and warfare have displaced large numbers of people in the Horn and created mass movements of refugees across borders. Hunger and disease have killed many.

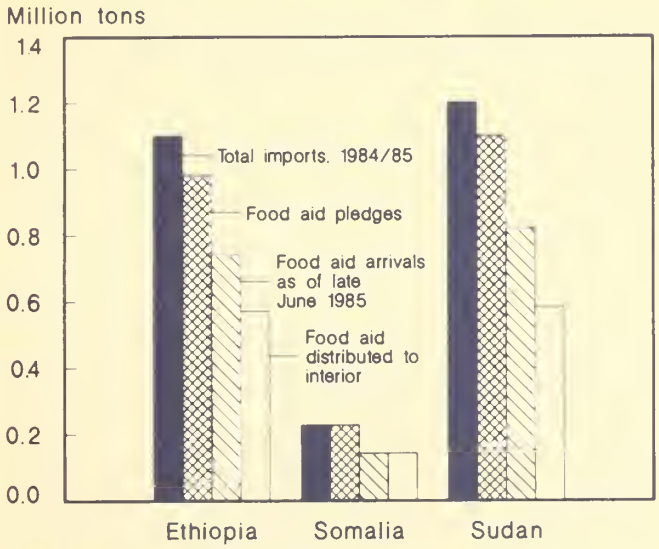
Although it is too early to predict the main 1985 crop, even with ample rains recovery will be slow in many parts of the Horn, because of seed and draft animal shortages and displacement of population. General improvement is expected in Somalia's and Sudan's modern subsectors. For the hardest hit areas of Sudan and Ethiopia, though, recovery will be incomplete.

In response to the famine, unprecedented levels of food aid have been allocated to the Horn. As of mid-June, the major ports were severely congested, as food aid arrived but internal distribution proved inadequate. The Horn's capacity to import food commercially is low because the countries' balance-of-payments positions are generally weak.

Sudan's Grain Harvest Halved by Drought

In 1984, Sudan's cereal output fell to 50 percent of normal. Production of sorghum--the country's principal food grain--fell to 1.2 million tons, one-third below 1983, and 2.1 million tons below the record 1981 crop. Drought conditions were especially severe in the provinces of Darfur, Kordofan, and the Red Sea Hills, with some areas reporting 2 or more years of drought. Production of wheat--an important part of the urban diet--was reduced to 50,000 tons in 1984/85, one-third of the 1983/84 harvest, because of shortages of water for irrigation. Peanut production also declined for a second year, to 390,000 tons.

Total Imports, Food Aid Pledges, and Distribution of Cereals in the Horn



Source: World Food Program and ERS estimates

Drought, Pests, and Civil War Plague Ethiopia

Although food grain production was 20 to 30 percent below normal in Ethiopia during 1984, over 5 million tons were produced, primarily in the highlands of the center and south. Below-normal rainfall, infestations of pests such as army worms, and Government investment and pricing policies were behind the reduced food supplies. Furthermore, civil wars in northern and eastern areas certainly contributed to food shortages. The regions facing the most severe food shortages, Eritrea and Tigre, are controlled largely by rebel groups at war with the regime of Mengistu Haile Meriam. Ethiopia's small secondary harvest of wheat, barley, and pulses occurs in May and June. In 1985, late but heavy rains provided partial improvement in this crop.

In 1984, Somalia's production of food grains increased to 384,000 tons, 34 percent over 1983's drought-reduced crop. Somalia's secondary harvest of maize and sorghum was near normal at over 100,000 tons in February 1985. However, food shortages persist in parts of central and northern Somalia.

Famine Afflicts Nomads and Displaces Farmers

The Horn's substantial nomadic population depends on livestock for much of its subsistence. Drought conditions have severely hurt these populations, causing losses and distress sales of livestock. Since livestock are simultaneously a source of food and income and a store of wealth, the losses have increased the nomads' dependence on outside food and financial assistance.

Always a transitory population, the nomads were joined last year by hundreds of thousands of famine-affected subsistence farmers in a search for food. Ethiopians, especially from Eritrea and Tigre, have migrated to Sudan, which also plays host to refugees from Chad and other countries. Movements of refugees in and out of Somalia, many of them ethnic Somalis from Ethiopia, have proved difficult to monitor. There are approximately 500,000 refugees in Somalia, and much of the food aid going to both Somalia and Djibouti is intended for refugees.

Ethiopia's Coffee Exports Strong; Exports Down in Sudan & Somalia

The performance of agricultural exports in the Horn was mixed in 1984/85. Although Ethiopia's coffee harvest declined 25 percent to 180,000 tons, exportable surpluses exceeded its International Coffee Agreement quota, and difficulties were experienced in marketing its surplus to nonparticipating countries. Sudan's cotton harvest, at 1 million bales, was up 10 percent over 1983. However, quality and logistical problems severely hampered its export, while world oversupply cut prices and demand. Sudan normally exports sorghum but did not in 1984/85 because of production shortfalls. Drought also reduced gum arabic and sesame exports. Somalia continued to suffer from the Saudi ban on livestock imports but succeeded in expanding its market in Egypt.

The overall economic performance of the countries in the Horn was poor in 1984/85. Sudan experienced a third consecutive year of declining real GDP. The drought sharply reduced agricultural output, which normally comprises one-third of GDP. The country's outstanding debt approached $9 billion, and debt-service obligations for 1985 are over $500 million, nearly four-fifths of export earnings. With imports estimated at $1.3 billion, Sudan's trade deficit continues to frustrate efforts to meet its debt-service obligations.

Much of Sudan's heavy debt burden was incurred during the 1970's. A series of debt reschedulings began in 1979, accompanied by efforts to improve economic performance. The latter included increased incentives for cotton production, World Bank investments in irrigated agriculture, and adjustments in exchange rates.

But, economic difficulties continued and by mid-1984 Sudan's financial position had become critical. In July, the IMF suspended its standby agreement for balance-of-payments support as Sudan fell into arrears in payments and failed to implement foreign exchange reforms. Consequently, the U.S. Commodity Import Program (CIP) was halted from September 1984 to March 1985 and other donors suspended foreign assistance.

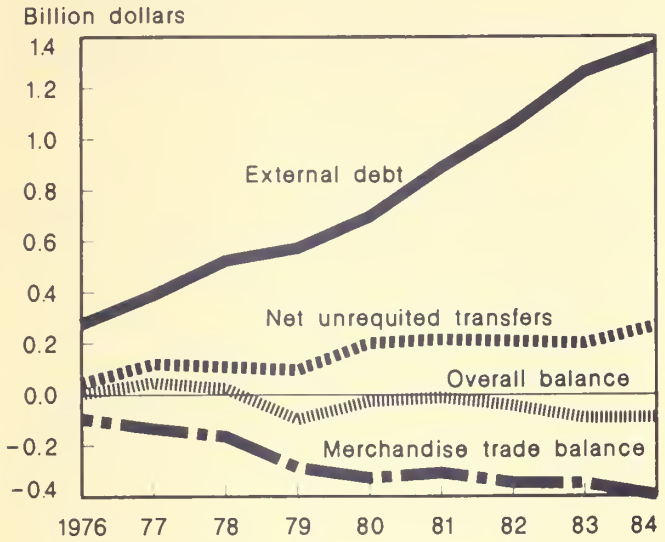
The United States, Saudi Arabia, and the World Bank later resumed their assistance to Sudan in response to new foreign exchange reforms and price adjustments affecting petroleum and bread. In March, bread prices were raised 33 percent, but widespread demonstrations forced a rollback to 8 percent in April. The demonstrations, fueled by chronic economic and management problems and by deep political divisions, culminated in a bloodless coup on April 6, ending the 16 years of rule of President Jaffar Nimieri.

Somalia Liberalizes Markets But Loses Saudi Market for Livestock

With longstanding economic and foreign exchange problems, Somalia has introduced several reforms since 1980, including significant devaluations and changes in foreign exchange regulations, liberalization of domestic markets, higher agricultural producer prices, and tax and public expenditure reforms. These reforms were supported by stabilization agreements with the IMF, and by assistance from the United States, Saudi Arabia, and other donors. The Somali economy responded well to these reforms, with strong growth in GDP and export earnings.

In 1983, Saudi Arabia banned cattle, goat, and sheep imports from Africa because of an outbreak of rinderpest; imports of goats and sheep resumed in early 1984. As a result of the ban, Somalia's livestock exports were reduced by 30 percent in 1983, forcing export earnings down by 24 percent and causing cutbacks in commercial imports. With lower export earnings, drought, and expansionary financial policies, the country's GDP growth--which had averaged over 6 percent between 1981 and 1983--fell to 3 percent in 1984. Inflation jumped from 35 percent in 1983 to over 90 percent in 1984, and export

Somalia's Balance of Payments and External Debt, 1976-84



earnings dropped to less than half of 1982's $140 million.

Somalia's trade deficit grew, but a serious deterioration in its current account balance was averted through considerable foreign assistance, including Saudi oil grants, U.S. food aid, and CIP assistance. In conjunction with this assistance, Somalia lowered its minimum export price for livestock, reduced restrictions on private use of foreign exchange and, in January 1985, allowed the exchange rate for private transactions to float. Somalia continues to draw heavily on IMF credit and its total debt service rose to over 40 percent of export earnings in 1984.

Ethiopia's Balance of Payments Worsens

Ethiopia's real GDP grew by 4 percent from 1982/83 to 1983/84, with nonagricultural output up by 4.5 percent. But because drought and civil war have sharply reduced agricultural output in 1984/85, recent GDP performance has been poor. From 1979/80 to 1983/84, inflation remained low, but it increased sharply in 1984/85 as food shortages pushed prices up. Ethiopia's trade deficit grew steadily from 1979/80 to 1983/84. Much of the deficit was financed by foreign assistance, although external indebtedness increased and foreign exchange reserves declined. This pattern continued in 1984/85, as coffee exports--the most important foreign exchange earner--declined by 10 percent and food aid and imports financed by foreign assistance increased. Ethiopia maintained a relatively low 12-percent debt-service ratio prior to 1982/83, but the ratio has risen to 20 percent over the past 2 years.

As a result of drought and foreign exchange difficulties, commercial food imports for the Horn are low, while food aid has soared. From 1981 to 1984, food aid to the Horn averaged 1.2 million tons each year. This year, 2.3 million tons have been allocated. Sudan has received pledges of 1.1 million tons of cereals food aid, with 75 percent of U.S. origin. Sudan's commercial imports are estimated at 100,000 tons, primarily from the United States. Food aid pledges to Ethiopia total 1 million tons, including 425,000 tons from the United States, while commercial food grain imports are expected to reach only 150,000 to 200,000 tons in 1985. Food aid to Somalia will be near 1984's 225,000 tons, with commercial imports expected to be under 50,000 tons.

Internal Politics and Logistics
Slow Food Distribution

Food aid arrivals at the ports serving the Horn have accelerated since January. The ports are now major bottlenecks, with 500,000 tons of food in storage at Port Sudan, Djibouti, Assab, and Massawa as of late June. Distributing this food to people most in need is difficult.

Food consumption levels are now adequate for survival in many parts of Ethiopia and in most of the central and eastern parts of Sudan, including many of the Ethiopian refugee camps. However, in rebel-controlled areas of Ethiopia, in the western provinces of Sudan, and in some remote rural areas, such as Sudan's Red Sea Hills province, food supplies are not adequate.

Although truck shortages explain part of the problem and the onset of the rains has complicated food distribution, much of the problem is political. In recent negotiations the Ethiopian Government has agreed to allow more humanitarian assistance in the northern provinces. In Sudan, efforts are underway to improve food deliveries by rail to Darfur province. An active insurgency in the south has disrupted both food distribution and objective reporting of food conditions. It is generally agreed that crop output was

somewhat diminished in this normally food-surplus region, but that food shortages are likely to exist only in small pockets.

Limited Improvement in 1985

The main cereal harvests in the Horn begin in September in Somalia and end in December in Ethiopia and Sudan. A number of nonweather factors are expected to keep production below normal. First, plantings will be reduced because of the displacement of population and continuing insurgencies. Second, inputs--such as seeds adapted to Horn growing conditions, draft animals, and farm implements--are in short supply. In Ethiopia, part of the 1985 crop may be lost to army worms because of inadequate distribution of pesticides.

As a result, even with normal rainfall, improvement in food production in Ethiopia and in Sudan's traditional sector during 1985 will be limited. In Sudan, the use of hybrid seed and mechanized farm techniques in the modern subsectors promise improved sorghum output. Wheat and cotton production in the irrigated subsector are also expected to rebound to normal levels, (see the special article by D'Silva and McKaig in this issue). Somalia's agriculture should continue to improve during the main 1985 harvest, barring unforeseen setbacks.

The medium-term outlook depends on the 1985 harvest. Recovery is likely to be stronger in the areas which normally produce food surpluses. However, much of the Horn's agriculture is based on subsistence farming, which suffered most from the drought. The loss of food stocks and other assets which would normally help poor farmers to recover have made the situation worse.

To revitalize agriculture, rehabilitation and development assistance will be required over many years. Rehabilitation will require continued efforts to provide farm inputs and increase livestock numbers. Longer term development will require the improvement of rural infrastructure; introduction of fertilizer, irrigation, improved seeds and soil conservation; rural credit; and, as surplus production is achieved, the development of marketing systems.

With agricultural recovery and policy reforms, the economies of these countries should start to improve in 1985/86. The GDP is expected to grow from the poor 1984/85 base. However, continued trade deficits and balance-of-payments difficulties are also expected. Ethiopia's coffee export revenues should remain weak, as labor shortages and trucking bottlenecks limit sales.

Somalia's export outlook has improved through trade commitments by Egypt. Sudan is looking to improved cotton exports to help it overcome its present crisis but it faces a competitive world market. Continued food deficits and low manufacturing capabilities imply high merchandise imports. Import activity will be mitigated to a limited extent by weaker currencies in Sudan and Somalia. Although food aid and foreign assistance levels will be high again in 1985/86, it is unlikely that these will fully cover current account deficits. Sudan, in particular, is likely to seek reschedulings and exceptional financing.

With the exception of Ethiopian coffee, the United States has limited demand for exports from the Horn. Although there will be considerable imports of food grains, soy, and dairy products into the Horn, commercial import capacity is limited. Thus, while U.S. exports to Ethiopia, Somalia, and Sudan are likely to remain high, most will be on concessional terms. [*Stephen Haykin, 202-786-1680*]

Kenya

Grain Output Drops, Cash Crop Earnings Rise

In 1984, Kenya's food production dropped to the lowest level since 1980, as the drought in the first half of the year cut grain output 25 percent below average. Fortunately, of Kenya's dominant agricultural commodities--coffee, tea, corn, meat, milk, and sugar--only corn and milk output were severely affected by the 1984 drought. However, delayed effects are hitting meat, coffee, and sugarcane production in 1985.

Corn production fell 23 percent in 1984 to 1.6 million tons, leaving the country in need of 660,000 tons of imports to meet ever-rising requirements. Wheat output was down 56 percent, to only 90,000 tons. To meet consumption needs which rose 10 percent to

400,000 tons, imports were 340,000 tons. A shift from corn bread and wheat products occurred in urban areas. Although rice output declined 9 percent to 33,000 tons, paddy, consumption remained low and imports were only 5,000 tons.

In late 1984, Kenya successfully launched an unprecedented corn and wheat import program, with 1984/85 grain imports reaching about 1 million tons. This permitted grain consumption to increase and to substitute for some other foods, so that starvation was averted. Approximately 1.5 million Kenyans required emergency food supplies, which were moved over large areas of the country. With its relatively high foreign exchange earnings, Kenya was able to increase commercial food imports sharply, to over 580,000 tons of grain; these exceeded the food aid shipments.

U.S. agricultural exports to Kenya are forecast at a record $55 million in 1985, mainly because of food aid shipments in response to Kenya's large grain shortfalls. In 1984, major items were 51,000 tons of corn and 30,000 tons of wheat, followed by nonfat dry milk and animal and vegetable oils. In 1985, U.S. exports will include 200,000 tons of corn (at least half commercial) and about 100,000 tons of wheat (mostly food aid). The United States is the main wheat supplier, but Thailand has increased its exports of corn and rice, all under commercial terms, as of early 1985.

Strong Beverage Prices Benefit Economy

Record world tea prices in 1984 and improved coffee prices enabled Kenya to achieve a 1-percent GDP growth rate, maintain adequate foreign exchange reserves, and a small balance-of-payments surplus. These, together with foreign assistance, allowed Kenya to cope with its 1984 drought crisis. However, its debt-service ratio increased to 31 percent and its trade balance worsened in 1984.

Tea is Kenya's fastest growing agricultural industry, and in 1984 output dropped only 3 percent from 1983's record 116,000 tons. About 150,000 smallholders account for two-thirds of the 81,000 hectares planted to tea. While smallholder tea plantings have not increased since 1982, harvested area is still increasing as immature bushes begin producing.

Kenyan and world tea prices

Year	Kenya's tea production	Kenyan producer prices for tea leaf		London average auction prices for tea	Kenya producer price as % of London price
	1000 tons	KSH/kg.	$/kg.	$/kg.	Percent
1978	93	.--	.--	2.19	.--
1979	99	.--	.--	2.16	.--
1980	90	.--	.--	2.24	.--
1981	91	2.50	0.28	2.01	.14
1982	96	2.62	0.24	1.98	.12
1983	120	3.64	0.27	2.32	.12
1984 1/	116	7.49	0.52	3.44	.15

1/ Preliminary.

Sources: U.S. Agricultural Attache, Nairobi, Tea Board of Kenya, IFS.

One of the attractions of tea is that it produced large foreign exchange earnings--approximately $290 million in 1984--on an area 40 percent smaller than the coffee area of 138,000 hectares. In 1984, world tea prices surpassed those of coffee, with London auction prices averaging $1.56 per pound, up 49 percent from 1983. Since 1979, Kenyan tea producer prices have increased steadily, and in 1984 they surpassed prices during the 1977 boom by 29 percent. However, in terms of U.S. currency, producer earnings did not rise until 1984, since from 1980 through 1984 the value of Kenya's shilling in dollar terms dropped by half.

Kenya's tea commands premium prices because of quality. The Kenya Tea Development Authority has increased supervision and inspection of leaf plucked. In 1984, Kenya reduced supplies of teas for domestic consumption by 10 percent in an effort to export more. Still, only about 102,000 tons were exported, down 5 percent from 1983. Nearly 50 percent of Kenya's tea is imported by the United Kingdom; Pakistan takes 17 percent. Other importers include Sudan, Egypt, the United States, Ireland, the Netherlands, and Canada. For blending for local consumption, Kenya also imports tea from Rwanda, Zaire, Burundi, Uganda, Malawi, and Tanzania.

Coffee Crop Sets Record; Stocks Grow

Coffee production continues to increase despite export marketing restrictions of the

ICO. Green coffee deliveries during 1983/84, nearly 2.2 million 60-kilogram bags, were 27 percent above the previous high of 1980/81. Increasing prices and an improvement in payments to farmers resulted in a record harvested area. A yield-increasing program includes closer tree spacing, increased fertilizer and chemical use, improved varieties, and the banning of interplanting with other crops.

While exports increased by 7 percent during 1983/84, they reached only 1.5 million bags, and ending stocks jumped 72 percent, to an estimated record 1.4 million bags. Exports to nonquota markets are estimated at 9 percent of the total. Western Europe and the United States take nearly all of Kenya's quota exports. Kenya's largest nonquota markets include Sudan, Jordan, Saudi Arabia, Iraq, and the United Arab Emirates.

Kenya's 1984/85 coffee crop is estimated at only 1.5 million bags, because of fertilizer shortages and the effects of the 1984 drought. But since exports are expected to increase only slightly above 1983/84, stocks will continue high.

Sugar Increases Are Insufficient

In the 1970's, Kenyan sugar output increased more rapidly than any major crop and the country shifted from being an importer to being a small (5,000-ton) exporter under an EC quota. Since 1980, however, output has stagnated, and yields have trended downward. Imported inputs have been inadequate. One reason is that Government priority has been given to grain and export crops. Production was increased in 1984 by heavy cane cutting, but this is causing a drop in 1985 output, resulting in estimated imports of 30,000 tons or more. Exports may be halted, since production may not improve until 1986 or 1987.

For the 1985 crop, cane prices have been increased by 8 percent. However, this is less than the increases in fertilizer prices, and also below the 12.2-percent rise in the producer corn price.

Cereal Outlook Generally Favorable

With a drop in world tea prices from the extraordinary 1984 level, Kenya's 1985 earnings from tea exports are expected to decrease. Kenyan export coffee prices remained high during early 1985, but in New York prices had dropped nearly 5 percent from a year earlier. Exports this year are expected to be close to 1984 unless nonquota market sales are increased. Therefore, overall export earnings may drop in 1985, hurting Kenya's balance of payments.

The outlook for cereal output is much improved for 1985. The main-season rains have been good and widespread. Corn plantings are above average, although yields may be reduced by bottlenecks in fertilizer distribution. The corn harvest is expected to allow for a sharp reduction in corn imports. The wheat crop will probably be average, with import requirements down about half from the 340,000-ton record of 1984/85. Total grain imports during 1985/86 could drop to a low 400,000 tons or less. [*Lawrence Witucki, 202-786-1680*]

Tanzania

Agriculture and Economy Continue To Decline

Tanzania's agricultural production dropped about 2 percent in 1984, because of drought, lack of inputs, and marketing disincentives. Cereal production, which has been declining since 1981, dropped 6 percent to 95 percent of the 1979-83 average. In the northern regions, crops lacked rain during the main growing season. Deliveries of cereals to the National Milling Corporation (NMC) remained very low and were exceeded by imports. With small stocks, inadequate import capacity, and weak infrastructure, the NMC was unable to transport enough food to the deficit areas. As a result, local market prices rose sharply and severe hunger occurred.

Despite a drop in cereal consumption in 1984/85, both imports and food aid rose above 1983/84, with corn accounting for two-thirds. U.S. exports to Tanzania average only $10 million a year, but include food aid of bulgur wheat, corn, soybean oil, and dairy products.

Tanzania's economy continued to decline, and per capita GDP fell to $200. While industrial production rose 2.2 percent, capacity utilization remained at less than 30

percent, as foreign exchange for imported inputs was unavailable. Inflation rose from 27 percent in 1983 to 36 percent in 1984. Export earnings--at $396 million--increased for the first time since 1981, and the trade deficit decreased slightly. Coffee, tea, and cotton exports were up. However, imports were still more than double the value of exports.

Cash Crop Output Stagnates

Coffee production, at 51,000 tons, dropped 7 percent in 1983/84. Dry weather, short supplies of fertilizers and chemicals, coffee berry disease, and delays in payments to producers were factors. Exports, however, increased 5 percent to 54,540 tons. Quota markets took 88 percent and prices were up 12 percent in dollar terms. For 1984/85, the crop is estimated at 55,000 tons, and exports are estimated at 58,800 tons.

Foreign exchange shortages have restrained use of imported inputs. In some areas, coffee and food crops compete, and interplanting is common. Over the last 3 years, producer coffee prices have risen 159 percent and official producer corn prices have gone up 197 percent, while green tea leaf has climbed 173 percent.

Last year's cotton output was a very low 40,000 tons of lint, despite a 40-percent producer price boost. Exports, however, increased by 13 percent as transport improved, facilitating a reduction in stocks.

Sugar production rose 14 percent to 132,000 tons, raw, because harvested area was up. But, the 1984 drought is reducing the 1985 harvest, and area has dropped as outgrowers have shifted to food crops. Sugar consumption is restrained by weak marketing infrastructure and by monthly quotas. Foreign exchange shortages prevent any substantial imports, while small exports continue and receive EC preferential prices and precious foreign exchange.

Government Policy Moving Towards the IMF

Tanzanian negotiations with the IMF continue, but without an agreement as of early 1985. An agreement with the IMF would mean a resumption of substantial inflows of funds and a rescheduling of debts. The Government has announced or begun implementing changes indicating a shift towards IMF recommendations, which include:

- devaluing the shilling against the dollar by 27 percent during 1984, and another 15 percent in early 1985;
- selling nationalized sisal estates to private firms;
- operating state corporations without depending on the Government to finance losses;
- sharply increasing producer prices for corn, rice, coffee, and tea (however, unofficial market prices for food crops are often much higher and are attracting more of the output);
- creating cooperatives to market crops and provide inputs, with Government marketing boards relinquishing their monopoly;
- reducing Government subsidies on food consumption and on farm inputs.

Outlook Improved for Food Crops

Food supplies were improving in early 1985. Cereal crops in the southern highlands are excellent and a corn surplus is expected. However, food shortages persisted in parts of the northwest. Also, in May, some dry areas in the northern regions reduced yield potential. Rains in early 1985 were beneficial to coffee flowering; with continued good weather, the 1985/86 coffee crop should be good. Large cereal import requirements will continue in 1985/86, since more supplies are needed to improve consumption levels. [*Lawrence Witucki, 202-786-1680*]

SOUTHERN AFRICA

Drought Ends, Production Rises

Improved rainfall during the 1984/85 growing season has led to increased harvests through most of Southern Africa. Only Botswana and South Africa had rain significantly below normal. Because of policy reforms that have increased incentives to farmers, some countries were well poised to

gain from better weather. However, warfare has continued to disrupt the economies of Angola and Mozambique and constrain agricultural production. These problems also affect the other countries of the region because of sabotage and closure of key transportation routes. With large surpluses available in Zimbabwe and Malawi, intraregional trade could allow the region to be self-sufficient in corn in 1985. But, some donor assistance will be necessary to help finance these grain flows, which could also be hampered by logistical problems.

Civil Strife & Food Problems Persist in Angola & Mozambique

The impact of fighting overwhelms most other issues facing Angola and Mozambique. Virtually all sectors of their economies have been affected, either directly or indirectly, and no quick end to the hostilities seems likely. Food production and distribution--already weak--have been further disrupted by displacement of farmers, shortages of fuel and inputs, and reduced marketing services. In Mozambique, guerrilla interference compounded the impact of major droughts in the previous 3 years and held back recovery this year when rainfall increased.

Huge inflows of food aid increased food availability in Mozambique during 1984 and the first half of 1985 and prevented the recurrence of large-scale starvation deaths. The United States has been the largest single donor. Cereal imports committed for 1984/85 totaled 640,000 tons, nearly 80 percent as aid. This was in line with estimated requirements. However, actual arrivals have been lower than pledges. Increased output should reduce import needs in 1985/86, but they remain high.

Food aid has also been critical in Angola, although on a smaller scale because of its stronger foreign exchange position. Expanded production and exports have bolstered Angola's oil revenues recently, but high defense expenditures apparently swallow these gains. Angola's import needs for 1985/86 will evidently rise since food production has stagnated.

Longstanding shortages of consumer goods in rural areas in both countries have been a major disincentive for peasant farmers, who account for most production. Large-scale operations have been plagued by labor shortages because of the lack of food or goods to pay workers. Mozambique has begun to stress improvement in this area as a fundamental part of its effort to rehabilitate agriculture, while Angola has at least acknowledged the problem.

During 1985, Mozambique has continued some policy reforms to stimulate production. Producer and retail prices for many commodities have been raised, and many prices decontrolled. The latter change aims at increasing food availability in local markets; decontrol had earlier succeeded in some trial cases. Although small family farmers are targeted for the bulk of increased Government support, private commercial farming is being encouraged by better access to inputs and to land. The Government wants foreign investment in agriculture, but little has been done, given the difficult setting.

Practical obstacles such as crippled transportation networks will constrain rapid improvement of agriculture in both countries. The problems are particularly daunting in Angola. Thousands of people have been displaced from the central highlands, where much of the nation's best farming land is located. Both countries have recently joined the Lome Convention and will qualify for more Western aid. Donors have already provided some help to Mozambique in the form of seeds and other inputs. With continued policy reform, the prospects for agriculture are beginning to improve in Mozambique, but only the return of peace will allow sustained growth.

Malawi Farm Output Rises

Malawi's 1984 agricultural output kept pace with its 3.2-percent population growth. The severe droughts that struck Southern Africa in 1983 and 1984 missed Malawi. The country's major crops of corn, tobacco, and tea all gained.

Corn output, at 1.4 million tons, was up over 4 percent. Increases in producer prices, which were larger than increases for competing crops, generated corn surpluses. Since 1982 Malawi has built stocks, and in 1984 it exported an estimated 100,000 tons of white corn to the region. Exports were aided by severe corn shortages throughout the

region, but financing difficulties arose because neighboring importers suffer from lack of foreign exchange. Wheat production in Malawi remains minimal and low consumption is readily met by 30,000 tons of imports.

After rapid growth, sugar production has stagnated since 1983. While yields have been above average, transport bottlenecks and weak demand have led to surpluses. In 1984 Malawi increased its sugar exports to the United States to $10.4 million, slightly exceeding the value of tobacco exports to the U.S.

Trade became very difficult for this land-locked country last year. Mozambique, Malawi's natural route to the sea, could not maintain security and its transport lines continued to be undependable and dangerous. As a result, Malawi has had to turn to a higher cost combination of trucks and rail to ports in South Africa. It is also beginning to use the port of Dar es Salaam, as a new road improves this northern route.

Despite high transport costs, Malawi increased its tobacco and tea export earnings in 1984, and was able to regain a small balance-of-payments surplus. The country achieved real economic growth of 7.6 percent. It also raised its foreign exchange reserves, which had dropped very low in 1983.

The outlook for Malawi's food crops is favorable. Corn plantings have been good, and so has the rainfall; an exportable corn surplus is expected. A less favorable aspect is that Malawi will face regional competition for its white corn exports, as Zimbabwe has considerable supplies for export. With lower world tea prices and continued weak sugar prices, Malawi's export earnings may drop in 1985.

Large Crops May Cause Handling Problems in Zambia

Zambia is currently harvesting bumper corn and oilseed crops due to large plantings and favorable weather. The large outturn of corn could make the country self-sufficient in its staple food for the first time in many years. It is also approaching self-sufficiency in vegetable oil.

However, to bridge the gap before the 1985 harvest became available, Zambia had to import over 50,000 tons of corn. Most of this came from Zimbabwe and was bartered for electricity. With low copper prices, severe foreign exchange shortages continue to hamper the economy and underscore the need to develop agriculture.

With record cotton and soybean crops, plus large sunflower production, oilseed processing capacity will be short. Corn marketing problems that developed in 1984 are expected to intensify with a bigger crop this year. Much of the 1984 crop could not be collected from rural depots before the onset of the rainy season, and losses were high.

The problems were rooted in shortages--including fuel, trucks, tires, and tarpaulins--and management difficulties. The lack of foreign exchange largely accounts for the shortages, while institutional factors explain the management problems. Despite an early-delivery price bonus offered for the first 3 months of the marketing season, a marked shortage of grain bags will further constrain timely deliveries in 1985.

Cotton and sugar output has expanded in recent years and small quantities have been exported. Because the sugar is irrigated and cotton tolerates drier conditions, they are less weather sensitive than corn, and they reflect good management with increased production. Cotton expansion has virtually all come from small farmers, under the strong lead of Lintco, a state agency that provides good extension advice and purchases the crop. Sugar is produced on a large estate under parastatal control with technical assistance from a foreign agribusiness firm.

Cotton and sugar's success is limited, however. While ginning capacity is being increased, Zambia remains a high-cost producer of cotton, and key inputs for the crop must be imported. Subsidies have been required in order to export. The scope for further expansion of sugar exports may be small because of limited market potential.

Policy Reforms Encourage Output

Higher producer prices have been the centerpiece of Zambia's policy reforms of recent years, and they have had a favorable short-term impact. Further increases, ranging from 12 to 30 percent for major crops and

higher for some others, have already been announced for 1986. Subsidies have been reduced as consumer food prices have been raised and largely decontrolled. The Government has also pledged to phase out subsidies to agricultural parastatals soon and will allow more private traders to engage in marketing. More investment in planning, training, research, and extension, now being done with donor support, should gradually pay off. The most immediate gain will be reduced food imports, while significant agricultural exports will take longer to develop.

However, policymakers have a host of other tough issues to confront in reforming agriculture. One of these concerns possibly setting up regional variations in producer prices, so that crops are produced in areas of comparative advantage and high transportation costs are reduced. But, administrative uncertainties may preclude this in the near future.

Improving credit availability, lowering high delinquency on loans, and solving other credit problems may require institutional change in Zambia. Fertilizer policies are being reconsidered in order to promote more efficient use. While lower subsidies will help to accomplish this, more knowledge of crop response in specific soils, revised nutrient analysis, and other critical elements will depend on effective research. [*Peter A. Riley, 202-786-1680*]

South Africa

Agriculture Recovers After Two Years of Drought

In 1984, South African agriculture made a partial recovery from the 1983 drought, but it was hit again by drought early last year. Agriculture's contribution to the GDP remained at a low 6.7 percent. The 1984 recovery was limited to an 8.5-percent increase over 1983, with both agricultural and food production only 2 percent above that of the late 1970's base period. During 1982-1984, South Africa's drought-impacted agricultural output dropped below its population growth. Despite the 1983 drought, livestock output continued to increase at the population rate that year, but in 1984 livestock grew at only 1 percent.

In 1985, production has recovered more fully; the main summer crops--particularly corn, sorghum, the oilseed crops, and cotton--are up sharply. But, livestock output may stagnate because of weak demand.

Economy's Growth Slows

South Africa's economy slowed in 1984 to 3-percent growth; slow growth is expected again in 1985. Mining did well, as production increased by 4.3 percent, and so did mining employment. Overall, however, unemployment grew. Gold again dominated, but its 72-percent share of export earnings was relatively low, as the gold price dropped about 15 percent during the year. Coal continued to gain importance, with export volume up 26 percent. Although the country's overall trade balance was positive, it narrowed during 1984.

Agriculture's trade balance also remained positive, but it dropped to about $500 million, the lowest surplus since the late 1960's. Agricultural exports were valued at a relatively low $1.2 billion and agricultural imports at $700 million; U.S. corn accounted for about 50 percent of these imports. Wool has become the major export, followed by fruits and sugar.

Irrigated Crops Fared Better

While most of South Africa's crops improved in 1984, total crop output was still only 90 percent of the 1976-78 base period. Corn production increased 8 percent, but only to 4.4 million tons, while domestic needs were 6.4 million. The dryland summer season crops were most affected by the severe droughts.

Sugarcane, cotton, wheat, and soybeans, which are partially irrigated, and tobacco, mostly irrigated, were damaged less. Wheat, more widespread, and 40 percent produced in the winter rainfall areas, was not affected by the drought. Also, wheat growers received well timed rains and, given large wheat stocks, South Africa has been able to maintain bread wheat self-sufficiency since 1982 and export small amounts regionally.

Input use is now sharply restrained by increasing farm debt and high interest rates. At the end of 1984, farm debt was about five times net farm income, compared to a 1.6

South Africa's crops

Major crops	1976-78 average	1983	1984	1985 1/	1985 / 1983
	1000 tons				Percent change
Corn	9,081	4,075	4,387	7,138	+75
Sorghum	428	194	508	580	+199
Wheat	1,930	1,809	2,243	2,000	+11
Sugar, raw	2,195	1,462	2,501	2,228	+52
Sunflowerseed	394	202	180	306	+51
Peanuts, in shell	229	89	72	166	+87
Soybeans	28	26	35	32	+23
Dry beans	68	27	47	47	+74
Cotton lint	35	27	34	46	+70
Tobacco	40	39	37	39	0
Apples	342	423	502	494	+17

1/ Preliminary.

Sources: U.S. Agricultural Counselor, Pretoria; ERS; FAS.

ratio in mid-1980. Nitrogen fertilizer use in 1984 was down 28 percent from the 1981 record and corn area was down about 10 percent.

Corn Returns to Near Self-Sufficiency

The 1985 crop season had mixed rainfall. In the northern and eastern Transvaal, rainfall improved, but further west, rainfall was again below normal. Water levels in some dams continue low. However, corn output is up to 7.1 million tons, still below trend but near self-sufficiency. White corn is in tight supply and imports from neighboring countries are likely; yellow corn imports are also possible.

After decreasing again in 1984, oilseed output recovered in 1985. Sunflowerseed output increased to 306,000 tons from 1983's dismal 180,000 tons, the lowest since 1972; small exports may occur this year. The 1985 peanut crop was up to 166,000 tons, and South Africa is expected to become a small net exporter again. In 1984, peanut output dropped for the fourth consecutive year to only 72,000 tons, in-shell. About 23,000 tons, shelled, were imported in 1984, over two-thirds from Argentina. The United States supplied about 4 percent.

Soybean output recovered to 35,000 tons in 1984, but production remains less than optimal because an effective combination of varieties, soils, and market incentives has not been found. For 1985, soybean plantings were reduced one-third as irrigation water was restricted, resulting in a production decline of 10 percent. About 15,000 tons of soybean oil imports will be required in 1985. In 1984, the United States provided about 50 percent of the oil imports and the U.S. share may increase in 1985. Since fishmeal production has dropped, vegetable protein oilmeal imports are also expected to continue in 1985, staying near the 1984 level of 110,000 tons. The U.S. share of these imports could increase to 20 percent. U.S. exports of oilseeds and products to South Africa during 1985 could exceed last year's $12.2 million.

Good Rainfall Led to Record Sugar Output

Sugar production last year jumped to a record 2.5 million tons, raw value, up 71 percent from the drought-damaged 1983 harvest. A record 276,000 hectares were planted, and 22.3 million tons of cane were harvested. Growers delivered additional cane in 1984/85 rather than risk lower prices in 1985/86 under the proposed two-price system. As a result, export availability is up sharply, to 850,000 tons, raw sugar, and stocks have tripled to 500,000 tons. During the 1985 quota year, South Africa has been allocated a U.S. import quota of 52,998 tons.

U.S. Agricultural Exports Dropping to More Normal Levels

U.S. agricultural exports to South Africa rose from $128 million in 1982 to $248 million in 1983 and $481 million in 1984. The increases were a result of unprecedented purchases of U.S. corn: 868,226 tons valued at $126.5 million in 1983, and 2.5 million tons valued at $366 million in 1984. The U.S. exports in 1984 accounted for 97 percent of total South African corn imports. U.S. rice, normally the major item sold to South Africa, did not change much and averaged $53 million each year. U.S. agricultural imports from South Africa, at $117.2 million, were up 36 percent in 1984, and consisted mainly of fruits and products, sugar, and wool.

With the 1985 corn harvest much improved, U.S. agricultural exports are forecast at only $150 million this year, and rice may regain its major position, although price competition from Thailand has

increased. U.S. wool exports are up and oilseed products and inedible tallow continue to do well.

Outlook: A More Market-Oriented Commercial Agriculture

The weakened economy and related agricultural policy moves are major factors in the outlook for South Africa's agriculture. Only a slight real increase is expected in private expenditures for food in 1985. Slow economic growth, estimated at only 1 percent, compounded by high unemployment, and 15-percent-inflation in early 1985, have constrained Government policies. The 1985/86 budget has been reduced in real terms, and the Government is attempting to cut subsidies. To retard inflation, the prime rate at the beginning of the year was at 25 percent. In early 1985 the gold price had dropped to half its 1980 value in U.S. dollars, and the Rand had dropped to $0.50.

While the policy of food self-sufficiency is expected to be maintained, it is unlikely that corn production will be encouraged as much as it was previously. No difficulties arose in importing large amounts of food in 1983 and 1984 and the Government may be more willing to import food during years of poor weather. In addition, farmers have been asked to take more export market price risk in corn and sugar, and they are therefore likely to produce less for export.

South African corn prices compared with U.S. prices

	1982	1983	1984	1985
S. African yellow corn price		$/tons		
	134.05	167.55	214.60	214.60
Exchange rate		$/rand		
	0.92	0.90	0.70	0.50 1/
S. African price in U.S. dollar equivalents		$/ton		
	123.33	150.75	150.22	107.30 2/
U.S. yellow corn prices	93.30	117.70	120.07	105.90

1/ Estimated, early 1985. 2/ May 1985 estimate.

Sources: U.S. Agricultural Counselor, Pretoria; ERS; International Financial Statistics.

Government assistance may be turning from general price supports toward specific, targeted farmers or groups of rural people with special needs. For example, in early 1985, the Government provided R100 million for an emergency job-creation program in rural areas, including the Black homelands, to reduce unemployment.

Despite strong pressure from commercial corn farmers, the Government has refused to increase producer prices for the 1985 crop. The producer price for yellow corn was held at R214.60 per ton. Consumer prices for corn were, however, increased by 10 percent, with wholesale white corn prices raised to R242.60. Since 1982, consumer white corn prices have been increased by 59 percent and producer prices by 63 percent. These sharp increases in the staple food of white corn explain the Government's resistance to further price increases. Since the Government did not want to increase spending on subsidies to hold down consumer prices, it held the line on producer prices in 1985. This action may also indicate less favorable future corn prices and cause producers to reduce plantings on marginal lands. Lower input use, if continued, will mean smaller yields, even when weather is favorable. [*Lawrence Witucki, 202-786-1680*]

Zimbabwe

End of Drought Signals Record Year for Agriculture

During the 1984/85 growing season, Zimbabwe had heavy rains for the first time in 3 years, and agriculture has made a strong recovery. A record corn crop, currently estimated at 2.9 million tons, will allow the rebuilding of stocks and the resumption of exports.

The major export crops, tobacco and cotton, also had excellent seasons. Output of flue-cured tobacco, 118,000 tons, was just slightly below targeted levels, with good leaf quality. Production of seed cotton could be as high as 340,000 tons, one-third greater than last year's record. Rain brought relief to dry southern and western livestock areas of the country, improving grasslands and pasture. A record harvest of wheat, the main irrigated crop, is in store for 1985. Abundant water

supplies will permit full use of irrigation, after area declined substantially in 1983 and 1984.

Many farmers will now be able to begin repayment of loans that were often rolled over during the drought crisis. Generally favorable producer prices and good yields should provide reasonable returns to farmers. Despite some relief through commodity import programs, soaring prices for imported equipment, spare parts, and inputs, along with other rising costs, keep strong pressure on producer margins. Credit was especially valuable in helping the cattle sector survive extreme stress.

Because of the drought, more farmers have begun to adopt moisture-conserving cultural practices and build small dams to extend irrigation. These types of efforts have already started to pay off. Revival of the Farm Irrigation Fund will help further, by increasing credit available for dams. Stored water is not only used for dry season crops, but also for supplementary irrigation of rainfed crops.

This strong agricultural performance will provide a major impetus to economic growth. Toward the end of 1984, the economy's decline began to show signs of ending, led by the mining sector and a better-than-expected showing by agriculture. For 1985, local sources forecast real GDP growth of at least 3 percent. Increased agricultural earnings--particularly among smallholders in the communal areas--will stimulate consumer demand and boost the manufacturing and retail sectors.

Although foreign exchange supplies will remain tight, the balance-of-payments situation is improving. Zimbabwe registered a small surplus in 1984, reflecting higher exports, curbs on invisibles payments, and tight import controls. Lower imports have constrained growth, however, particularly for industry. To avoid larger subsidies, retail food prices will have to be raised during 1985 to keep pace with producer prices; most were recently increased. Resumption of an IMF loan could ease some of the pressure on the economy, and talks are expected this year. Despite financial adjustments mostly in line with IMF guidelines, the standby agreement was suspended in 1984 because of concern over Zimbabwe's large budget deficit.

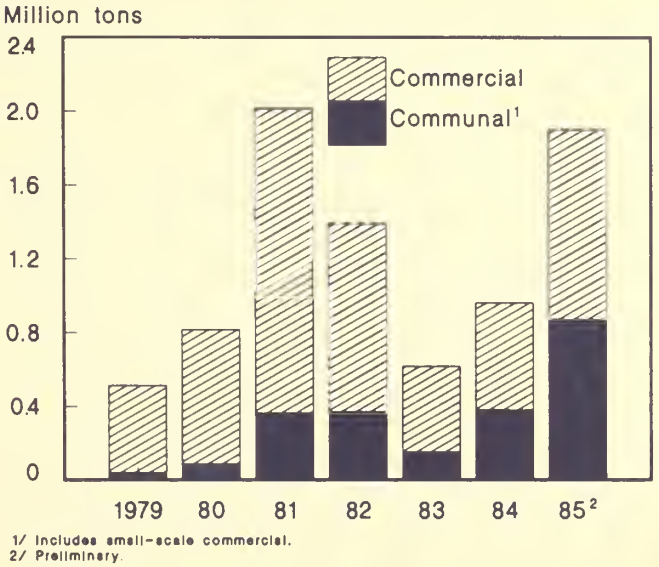
Communal Farmers Respond to Increased Services

Focusing Government services on peasant farmers is starting to show dramatic results, with increased production and marketing. Last year, the country had planned large corn imports to make up for drought-reduced production. Only half these imports had to be made, though, because sales by communal farmers jumped some 300,000 tons above forecasts, following late rains in northern areas.

This year, the communal and small-scale sectors could account for over half of the total crop and over 40 percent of marketed sales. This level was made possible by good rains extending even into normally marginal corn areas. For cotton, the communal share of output will be close to 50 percent, continuing the steady gains of the last few years.

Procuring the unprecedented level of corn from the communal sector will necessitate additional resources, though, since high assembly costs are incurred collecting relatively small amounts of grain per farmer. The Government is trying to facilitate this exercise by setting up additional temporary depots, coordinating private truckers, and subsidizing some delivery costs over a certain threshold.

Zimbabwe Marketed Corn by Sector



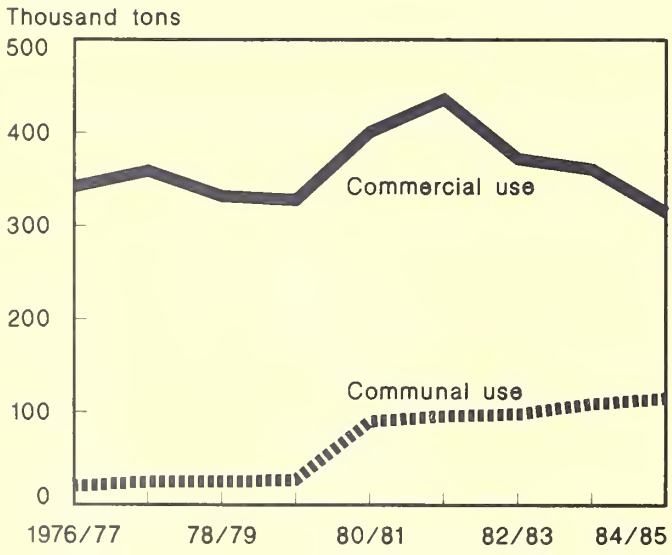
1/ Includes small-scale commercial.
2/ Preliminary.

The upsurge in communal agriculture is the result of many factors. Good extension advice has accompanied more access to credit and increasing use of fertilizer, improved seed, and other inputs. Estimated yields of corn, the major crop, have gone up substantially. Land quality and availability remain a problem in the communal sector, however. Guaranteed prices were established last year for millet and beans to offer crop alternatives in marginal areas, which are often too dry for corn. Although millet has been untouched by research and no improved varieties exist, small increments in output could cause surpluses, since market demand is questionable. Prospects for sorghum are better, on both supply and demand.

Outlook Good for Agricultural Trade

Zimbabwe's agricultural trade picture is bright, with a diversified and expanded portfolio of exports and only small imports needed. Wheat from the United States will be the principal import in 1985. There are some uncertainties, however. Foremost is further reliance on longer and more expensive transportation routes through South Africa, hurting the terms of trade.

Zimbabwe: Fertilizer Use by Sector



Strong earnings are forecast for tobacco and cotton, with the latter sold at a premium above world prices due to high quality. Earnings of both last year set records, which should be surpassed again. Further depreciation of the Zimbabwe dollar will allow tobacco to maintain and possibly expand its market share in a tight world market. Tea and coffee, formerly minor exports, are growing increasingly important, as higher production and good prices boost revenues.

Zimbabwe will resume corn exports in 1985, but most likely markets lack foreign exchange. Furthermore, the region's import needs are lower this year, and Malawi also will be exporting. The main objective of corn production is to satisfy domestic requirements; exporting is viewed only as a residual. Zimbabwe's potential surplus available for export could approach 1 million tons, but actual sales will be much lower, causing large stocks to build up.

Another large export, sugar, also faces marketing difficulties. Although Zimbabwe has sufficient market outlets, world prices are drastically low. Fortunately, up to 35 percent of Zimbabwe's exports are sold at higher prices through preferential trade agreements. But future increases in sugar production will probably be linked to rising domestic demand rather than to growth in trade.

The most perplexing problem concerns beef exports. A major export in the 1970's, beef export sales have begun to increase again after a sharp downturn in the early 1980's. Supplies grew in light of the drought and a depressed local market. However, earnings have been disappointing in a world market glutted with beef. Pending certification of health standards, Zimbabwe is waiting to export to the EC under quota at favorable prices. This is considered essential to justify the country's current modernization of slaughtering and processing facilities. [*Peter A. Riley, 202-786-1680*]

An Analysis of Rising Grain Imports in Sub-Saharan Africa: The Outlook for Wheat and Rice

Peter A. Riley
and
Margaret Missiaen*

Abstract: Grain imports by Sub-Saharan Africa reached a record 10.7 million tons in 1984. Chronic weaknesses in agricultural production, along with periodic food emergencies, have fueled the increases in imports. The fact that grain imports have not decreased, despite severe foreign exchange shortages in recent years, suggests that less money is available for other sectors of the economies. These factors have important implications for import behavior over the rest of the 1980's. Without changes in production patterns, total grain imports by 1990 are projected to rise by 40 percent and possibly as high as 70 percent over the average of 1980-84. Further dietary shifts toward wheat and rice are likely to accompany greater reliance on imports.

Key words: Sub-Saharan Africa, grain imports, wheat, rice, per capita production and consumption.

Total grain imports by Sub-Saharan Africa 1/ reached a record 10.7 million tons in 1984, exceeding the previous peak of 1982 by more than a half-million tons. Another record is likely in 1985. This continues a fairly steady trend; the region's imports have quadrupled over the past 15 years. Despite rising imports, however, consumption of grains has stagnated on a per capita basis. Wheat and rice, the largest imports, have become increasingly important parts of average diets in the region, although in recent years the rate of import growth for wheat and rice has slowed.

Chronic weaknesses in agricultural production, along with periodic food emergencies, have fueled the increases in imports. Political forces also influence the region's import behavior, particularly for wheat and rice. The fact that grain imports have increased, despite severe foreign exchange shortages, suggests that less money is available for other sectors of the economies.

These factors all have important implications for import behavior over the rest of the 1980's. Projecting to 1990 under two scenarios, we found that the region's grain imports will increase to 15.2 to 18.3 million tons--from 40 to 70 percent. The aggregate approach used here smooths out differences among individual countries. These scenarios assume per capita production and consumption trends are similar to previous periods.

Imports Grow, But Availability Stagnates

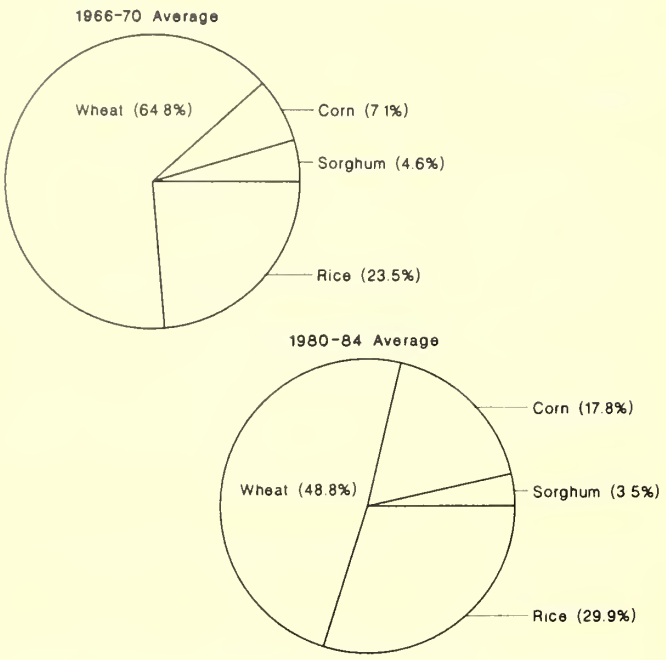
In Sub-Saharan Africa, grains, roots, and tubers dominate the diet. There is little international trade in roots and tubers, and grains are the principal food imports. Wheat has traditionally been the region's major import, followed by rice. While wheat remains by far the largest import, its share in total cereal imports has declined in recent years. Rice has increased only marginally, and increases in coarse grains account for the remainder (see accompanying figure). Up to the mid-1970's, Sub-Saharan Africa was actually a net exporter of corn, and net corn imports have become large only since 1980. Sorghum imports peaked during the Sahel drought of the early 1970's, but this record was surpassed in 1984, and sorghum will set another record in 1985.

While grain imports by Sub-Saharan African countries have increased at an average annual rate of 14 percent from 1966 to 1984, the growth rate in the 1980's has been much slower than during the 1970's. The slower growth has come at a time when both

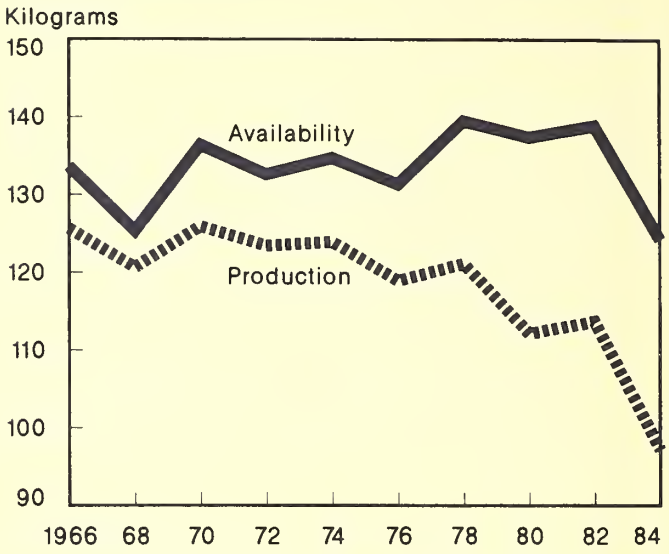
* Agricultural economists, Economic Research Service, USDA

1/ Does not include South Africa.

Commodity Composition of Imports



Total Grains: Per Capita Production and Availability



per capita domestic grain production and export earnings have declined. Thus, imports have served to make up only some of the drop in per capita production. Despite sharp increases in food aid, foreign exchange constraints have prevented many countries from importing sufficient grain to maintain per capita availability in recent years. 2/ The 1980-84 average was 134 kilograms, compared with 136 in 1966-70. However, this average disguises different patterns among countries; drops in per capita availability are more pronounced among the lower income countries. Some of the wealthier countries, such as the Ivory Coast, have actually increased availability over this period. In the case of Nigeria, per capita availability has stayed virtually unchanged.

Imports fill two main functions in Sub-Saharan Africa: compensating for structural food deficits and meeting emergency food needs. Wheat and rice imports have generally been used to fill structural deficits, where domestic production is always below demand. Most of the countries do not grow substantial amounts of wheat and use it only to supplement other foods. Rice is more widely grown and is a staple in many areas. Nigeria, the region's largest importer by far, is a good example of this pattern. It produces just 2 percent of its wheat, contrasted with 60 percent of its rice. Changes in domestic output have relatively little bearing on imports.

Since 1980, coarse grain imports have soared, but their import pattern has been highly variable. Imported coarse grains have largely compensated for drought-induced or other temporary shortfalls of domestic staples. In contrast to wheat, in coarse grains there has been a close correlation to domestic output, which in turn is strongly related to fluctuations in weather. 3/

Wheat and rice imports have also been used in food emergencies to substitute for domestic coarse grains, especially when provided as food aid. However, in the context

2/ Availability is defined here as the sum of domestic production and imports. Stocks were not included because of data problems. While stock changes can be large in individual countries, they are small in aggregate.

3/ While more corn is being fed to livestock in Sub-Saharan Africa, feed use is still a very small share of total imports and availability. Nigeria imported corn mostly for feed in 1981 and 1982, but purchases have declined sharply in recent years and are likely to remain at the current level of about 100,000 tons per year. Feed use for the region is less than 4 percent of total availability during good years and declines when supplies are tight.

of stagnating food production and high population growth, deficits of coarse grains are becoming chronic.

Consumption Shifts Towards Wheat and Rice

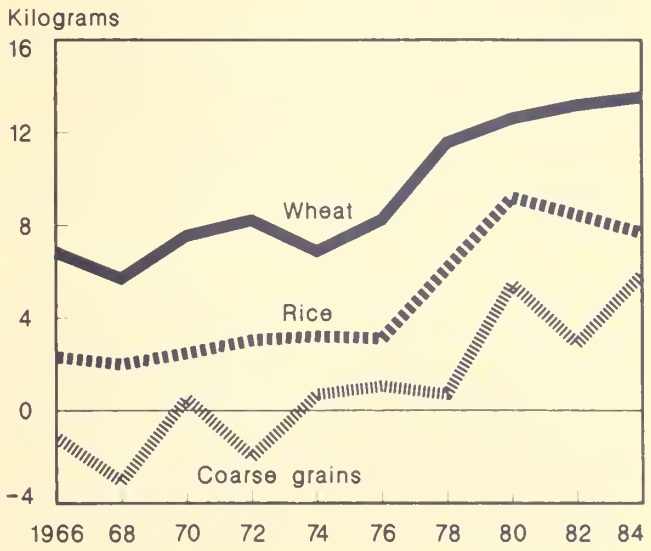
In recent years wheat and rice have become increasingly important in the African diet. 4/ In the 1980's, per capita availability of these grains comprised 27 percent of the total, up from 18 percent at the end of the 1960's. With total grain availability stagnant, this has meant a corresponding decrease in the share of coarse grains in the diet. Over 75 percent of the wheat and over 40 percent of the rice are imported, and these are disproportionately consumed in cities.

Political factors have played a major role in shaping consumption patterns. Government policies have directly or indirectly stimulated greater consumption of these foods. Consumer subsidies have been widely used to keep prices artificially low. In a number of countries, retail prices--in real terms--declined over much of the study period.

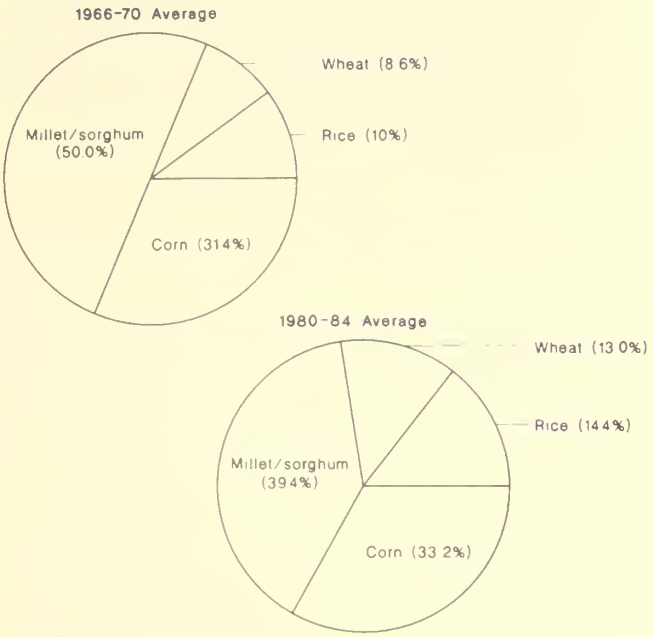
African governments have allowed the dramatic growth in imports needed to keep pace with growing demand, since they generally control imports, either as direct importers or through licensing other traders. The tendency to import has been reinforced by overvalued exchange rates, making the commodities cheaper. Indirectly, policies that have neglected domestic agriculture have contributed to rising imports as well, coupled with the strong political incentive to maintain food supplies in urban areas. Because of exchange rate policies, in some cases it has been easier and even cheaper to supply cities with imports than to provide locally produced foods. This reflects low investment in agriculture and unreliable marketing systems, characterized by high transportation costs. Zaire has been typical in this respect, although devaluation and floating of the currency have recently made imports more expensive.

4/ This was measured by per capita availability, used here as a proxy for consumption.

Per Capita Grain Imports, 1966-84



Composition of Available Grain



The shift towards wheat and rice has been closely associated with urbanization. While Sub-Saharan Africa remains predominantly rural, urbanization has increased rapidly over this period. Urban consumers have developed tastes and preferences for wheat and rice, in large part because they are more convenient to prepare than many traditional foods. Increased consumption has also been linked to income growth.

Both of these factors may in turn be connected to the neglect of agriculture, leading many people to move to cities where they can earn more. Although overall income

growth has been stagnant or negative in most countries in the last few years, per capita consumption of wheat and rice continued to increase until 1982. Since then, supplies have been very tight or short in most of the region, leading to a slight decline in per capita consumption.

Foreign Exchange Earnings Constrain Imports

African governments are increasingly confronted with tough decisions on the allocation of scarce financial resources. The economies of most of these countries have been stagnant or declining in recent years. In the past, there has been a close correlation between export earnings and grain imports. However, since 1980, falling export earnings and sharply higher debt-service requirements have not translated into reduced imports, although the rate of growth has slowed. This suggests that a higher proportion of foreign exchange is being spent to import food.

For many of the poorest countries, higher grain imports were made possible by increased food aid, but many actually increased commercial purchases as well. During the 1970's, the average annual growth rate for grain imports was almost 20 percent; it has dropped to 14 percent in the 1980's. For the largest importers, such as Nigeria and Ivory Coast, the slowdown in import growth has been even more pronounced.

In 1980, the region's export earnings peaked at over $50 billion. Then they dropped in each of the next 3 years. Small recoveries in 1984 and 1985 will still leave earnings at about $35 billion. Nigeria's exports accounted for about half of the total in 1980 and were responsible for a large share of the decline in the following years. Earnings from petroleum exports and other primary commodities are not expected to increase significantly in the next few years, leaving the question of financing food imports unanswered. Higher flows of food aid may continue, but these cannot be expected to compensate fully for shortages of foreign exchange. In any case, food aid does not affect imports by the biggest importer, Nigeria, since it is not a food aid recipient.

Imports To Increase

Total grain imports by Sub-Saharan Africa are forecast to continue to increase. Given previous patterns, the level of coarse grain imports will fluctuate considerably from year to year, while growth of wheat and rice imports should be more constant. Although some recovery in grain output is expected in 1985, following the droughts of 1983 and 1984, no long-term increase above population growth is expected. Even if production in 1985 were to return to the record level of 1981, it would still leave per capita output at only 108 kilograms--the third lowest since 1966--because the region's population has increased by an estimated 46 million in this short period.

Without changes in production patterns, Sub-Saharan Africa's total grain imports by 1990 are projected to rise by 40 percent and possibly as much as 70 percent over the average in the first half of the 1980's. Assuming production increases at only the 1975-84 rate, the import gap is projected at 18.3 million tons by 1990 (table A). 5/ Applying a more optimistic production scenario--the average of 1966-84--leaves the gap reaching 15.2 million tons.

At best, further import increases are likely to maintain the region's per capita availability only at recent average levels. In some countries, per capita availability may increase through either higher imports or better production or both. An underlying assumption here is that per capita grain availability will stabilize at the 1980-84 average of 134 kilograms--significantly above 1983 and 1984. This means that total grain requirements will increase to 63 million tons by 1990, compared with the 1980-84 average of nearly 50 million. Increasing per capita availability would boost total needs and import requirements even higher.

5/ Scenarios projected production based on historical growth rates, deducted this from assumed availability, and estimated imports as the residual. This was done on a per capita basis, with the aggregate results obtained by multiplying through by population. The region's population was projected to grow at 3 percent per year.

Table A.--Grain availability scenarios based on 1975-84 production trends

TOTAL GRAINS
(annual per capita production growth rate of -2.2%)

	Per capita			Aggregate		
	Prod.	Imports	Avail.	Prod.	Imports	Avail.
	----Kilograms-----			---Million tons----		
Actual						
1966-70	129.1	6.5	135.6	32.5	1.6	34.1
1980-84	108.5	25.3	133.8	40.3	9.4	49.7
Projected						
1985	106.1	27.7	133.8	43.2	11.3	54.5
1986	103.8	30.0	133.8	43.5	12.6	56.1
1987	101.5	32.3	133.8	43.8	14.0	57.8
1988	99.3	34.5	133.8	44.2	15.4	59.5
1989	97.1	36.7	133.8	44.5	16.8	61.3
1990	94.9	38.9	133.8	44.8	18.3	63.1

WHEAT
(annual per capita production growth rate of -3.8%)

Actual						
1966-70	5.1	6.3	11.4	1.3	1.6	2.9
1980-84	3.8	13.1	16.9	1.4	4.9	6.3
Projected						
1985	3.7	13.2	16.9	1.5	5.4	6.9
1986	3.5	13.5	17.0	1.5	5.7	7.1
1987	3.4	13.8	17.2	1.5	5.9	7.4
1988	3.3	14.0	17.3	1.5	6.2	7.7
1989	3.2	14.3	17.5	1.4	6.6	8.0
1990	3.0	14.6	17.6	1.4	6.9	8.3

RICE
(annual per capita production growth rate of -0.4%)

Actual						
1966-70	11.1	2.2	13.3	2.8	0.5	3.3
1980-84	10.8	8.0	18.8	4.0	3.0	7.0
Projected						
1985	10.7	8.0	18.8	4.4	3.3	7.6
1986	10.7	8.4	19.1	4.5	3.5	8.0
1987	10.7	8.7	19.3	4.6	3.8	8.4
1988	10.6	9.0	19.6	4.7	4.0	8.7
1989	10.6	9.3	19.9	4.8	4.3	9.1
1990	10.5	9.7	20.2	5.0	4.6	9.5

Table B.--Grain availability scenarios based on 1966-84 production trends

TOTAL GRAINS
(annual per capita production growth rate of -1.1%)

	Per capita			Aggregate		
	Prod.	Imports	Avail.	Prod.	Imports	Avail.
	-----Kilograms-----			----Million tons----		
Actual						
1966-70	129.1	6.5	135.6	32.5	1.6	34.1
1980-84	108.5	25.3	133.8	40.3	9.4	49.7
Projected						
1985	107.3	26.5	133.8	43.7	10.8	54.5
1986	106.1	27.7	133.8	44.5	11.6	56.1
1987	105.0	28.8	133.8	45.3	12.5	57.8
1988	103.8	30.0	133.8	46.2	13.3	59.5
1989	102.7	31.1	133.8	47.0	14.3	61.3
1990	101.5	32.3	133.8	47.9	15.2	63.1

WHEAT
(annual per capita production growth rate of -2.1%)

Actual						
1966-70	5.1	6.3	11.4	1.3	1.6	2.9
1980-84	3.8	13.1	16.9	1.4	4.9	6.3
Projected						
1985	3.7	13.1	16.9	1.5	5.4	6.9
1986	3.7	13.4	17.0	1.5	5.6	7.1
1987	3.6	13.6	17.2	1.6	5.9	7.4
1988	3.5	13.8	17.3	1.6	6.1	7.7
1989	3.4	14.0	17.5	1.6	6.4	8.0
1990	3.4	14.2	17.6	1.6	6.7	8.3

RICE
(annual per capita production growth rate of -0.2%)

Actual						
1966-70	11.1	2.2	13.3	2.8	0.5	3.3
1980-84	10.8	8.0	18.8	4.0	3.0	7.0
Projected						
1985	10.8	8.0	18.8	4.4	3.3	7.6
1986	10.7	8.3	19.1	4.5	3.5	8.0
1987	10.7	8.6	19.3	4.6	3.7	8.4
1988	10.6	9.0	19.6	4.7	4.0	8.7
1989	10.6	9.3	19.9	4.9	4.3	9.1
1990	10.6	9.6	20.2	5.0	4.5	9.5

Further dietary shifts towards wheat and rice are likely to accompany greater reliance on imports. By 1990, wheat imports are projected to reach 6.7 to 6.9 million tons and rice 4.5 to 4.7 million. The region's wheat and rice production were also projected at historical growth rates. However, slight increases in the wheat and rice shares in total availability above the 1980-84 average are assumed to continue, with 1990 equal to the peaks reached in 1982. Because wheat production is so low, improved production in a few countries could significantly raise the growth rates used here. Rice production is much larger and has grown at a fairly steady rate, so that it is less likely to vary over the projected period.

Key Policy Issue Emerge

The dynamics of surging grain imports in Sub-Saharan Africa could begin to change during the second half of the 1980's. The prolonged economic crisis affecting the region and the increasing role of external financial sources have started to bring greater scrutiny of government policies. In many countries, policy adjustments--involving both agricultural production and food

consumption--are being made or considered. These could affect imports and projected needs.

On the production side, many countries are reexamining agricultural policies that have failed to provide producer incentives. Such measures as higher producer prices, allowing more private enterprise in marketing, and increasing supplies of consumer goods in rural areas are often being adopted. These adjustments can elicit some response in the short term and bolster production. However, the potential response in much of the region is often constrained by deteriorating infrastructure, civil strife, and other factors.

There are also signs of more fundamental policy shifts towards greater investment in agriculture. These will have a longer term impact through more research and training, for instance. Over the period studied, policy changes are likely to improve the setting for production, but they will probably not lead to major changes from the scenarios discussed. In the short term, the key variable in output will more likely be weather.

Consumption policy changes now being initiated will also affect import dynamics. The key variables here are largely financial. The objective of most changes is to curb consumption of imported grains. Many countries are reducing consumer subsidies, raising retail prices for wheat and rice accordingly. Similarly, exchange rate policies are being adjusted, and many currencies have been devalued in the last 2 years. However, where exchange rates are fixed, the effect of devaluations may well be temporary; currencies are likely to become overvalued again as inflation builds. Regardless of these measures, continuing and probably increasing shortfalls of domestically produced grains could overwhelm attempts to halt increases in imports.

Per Capita Food Availability in Sub-Saharan Africa: Possible Developments

Shahla Shapouri*

Abstract: For 10 Sub-Saharan Africa countries with high dependence on food aid, calculations were done on the probability that per capita food availability will fall below trend between now and 1990. For 6 of the 10, food availability is more likely to fall 6 percent or more below trend than it is to fall only 5 percent or less. The likely future food gap for the 10 countries was figured for three scenarios: base, optimistic, and crisis. Under the optimistic scenario, results showed that some small policy changes to encourage agricultural production, plus a better export market and normal weather, could raise per capita food availability 7 to 35 percent by 1990 for several of the countries. On the other hand, under the crisis scenario, drought in 1989 and 1990 would lower per person food availability by 10 to 58 percent from the base--resulting in famine worse than any actually experienced so far.

Key words: Sub-Saharan Africa, food aid, consumption patterns, agricultural policies, famine.

Because of their increased food aid dependence, 10 countries are the subject of ongoing ERS research: Senegal, Niger, and Mali in West Africa; Ethiopia, Kenya, Sudan, and Somalia in East Africa; and Lesotho, Mozambique, and Zambia in Southern Africa. All have experienced food emergencies since 1980 and have received significant food aid since 1966. Consistent with the pattern throughout Sub-Saharan Africa (excluding South Africa), domestic food production in these countries has not kept pace with population growth, and financial crises have reduced commercial import capacities (see the article by Riley and Missiaen in this issue). From 1966 to 1983, these countries experienced 10- to 20-fold increases in cereal

*Agricultural economist, Economic Research Service, USDA.

imports, and food aid growth rates have been significantly higher than for commercial imports.

Food Availability Analysis

Since 1966, per capita cereal consumption has stagnated or declined in these countries, as the rapid expansion of food aid has failed to fill the gap between production and consumption. Somalia is the only country which has shown a significant increase in per capita cereal consumption, because it is has been the largest per capita recipient of food aid--34 kilograms per year between 1981 and 1983.

An analysis of food availability (domestic supplies plus net imports) in the 10 countries reveals the following:

- low levels of per capita food consumption, implying poor nutrition and vulnerability to food shortages;
- significant annual variations in food supplies, mainly because of natural causes, such as droughts or floods;
- uneven distribution of food, geographically, across income groups, and by season.

As table A indicates, food availability in all countries was less than required. In Mali, Mozambique, and Ethiopia, per capita availability in 1981-83 was far below the normal requirements of 2,340 calories per person. This caloric deficiency gives a simplified picture of the overall nutritional situation, because a diet can be sufficient in some basic nutrients and deficient in others. However, disease, high mortality rates among children, and the low average life expectancy are further indications of malnutrition in these countries.

Given the low nutritional base, the high variability in food availability puts these 10 countries at risk. Since a large proportion of the food is produced by subsistence farmers, most of the production variations are directly transferred to consumption. Although food aid and commercial imports increased significantly during the 1966-83 study period, they did not necessarily stabilize food consumption.

The Drop of Per Capita Food Availability

The extent and probability of actual per capita availability falling below trend in these countries have been calculated (table B). The data show that in six countries, the probability of food availability declining 6 percent or more below trend is significantly higher than the probability of only a 5-percent drop below trend availability. The high probability of food availability falling below trend, combined with the already low level of nutrition, has produced catastrophic real-life results: famine

Table A.--Indicators of historical change and variability of per capita cereals availability, 1966-1984

Country	Growth rate 1/	Probability of availability shortfall	
		0-5 percent below trend	6 percent or more below trend
	Coefficient	Percent	
Ethiopia	-0.65	0.0	33.4
Kenya	-0.13	11.2	33.4
Lesotho	0.31	5.6	38.9
Mali	-1.68	50.0	11.2
Mozambique	-2.72	27.8	22.3
Niger	0.23	11.2	27.8
Senegal	0.59	38.9	22.3
Somalia	1.52	33.4	27.8
Sudan	0.08	22.3	33.4
Zambia	-0.65	16.7	38.9
Zimbabwe	-0.78	33.4	11.2

1/ Regression coefficient of time trend.

Source: Calculated from ERS data base.

Table B.--Cereals: Per capita calories available

Country	Contribution of cereals to calorie consumption	Calorie availability 1966-68	Calorie availability 1981-83	Percent of required 1968	Percent of required 1981-83	1981
	Percent	Calories		Percent		
Ethiopia	68	2,346	1,951	100	83	76
Kenya	56	2,079	2,022	89	86	88
Lesotho	76	1,848	2,281	79	98	111
Mali	72	2,012	1,568	86	68	72
Mozambique	34	2,403	1,592	103	68	70
Niger	67	2,265	2,106	97	99	102
Senegal	65	2,158	2,293	92	98	101
Somalia	43	1,780	2,176	73	89	100
Sudan	56	1,982	1,979	85	85	99
Zambia	65	2,246	2,230	96	95	93

Sources: FAO, Provisional Food Balance Sheet, 1972-74 Avg.; ERS data base; and World Bank estimates.

in 1973-74 in the Sahelian countries, and the 1984-85 famine in Ethiopia and Sudan.

Most of the food aid received by these countries (with the exception of Sudan and Senegal) was in response to natural disasters, and it reduced widespread loss of life in the short run. In the 1973-74 Sahel drought, the food aid received in Mali, Niger, and Senegal comprised about 14, 18, and 9 percent, respectively, of total consumption. During the 1979-80 drought in Southern Africa, food aid contributed about 16 percent of consumption in Lesotho and 13 percent in Mozambique.

Food aid was also successful in freeing foreign currency from food imports in years with large production shortfalls. During the 1981-83 drought, Sudan, Ethiopia, Mozambique, and Kenya received twice as much food aid as commercial imports. In other countries, the proportion of food aid to total imports varied from 20 percent to 120 percent.

Among the countries analyzed, only Sudan and Senegal were historically recipients of program food aid. In Sudan, all the food aid received was wheat. In the late seventies, Sudan's wheat area stagnated and then declined in response to extreme shortages of inputs and poor Government management. The Government's artificially low official prices, compared with the cost of production, were obstacles to increasing production. Given the importance of wheat in the Sudanese diet and the large quantity imported as food aid, one can conclude that aid may have actually helped the Government to permit a decline in domestic production.

The share of food aid in total imports in Senegal ranged from 6 to 30 percent between 1966 and 1983. During the period, the growth in food aid was higher than in commercial imports, 6.5 versus 4.0 percent, leading to a self-sufficiency ratio of 60 percent in 1981-83. The Senegalese Government policy towards domestic production follows the pattern of other countries, with set prices declining in real term (prices deflated by CPI). Given the security role of food aid, one can argue that food aid also allowed Senegal's Government to ignore the seriousness of the problems facing the food sector.

The Outlook to 1990

Food aid requirements can be assessed in different ways, depending on the scope and use of the projections. The following section focuses on the mid-term outlook for food aid programs. The food gap is estimated assuming per capita consumption does not decline from the 1981-83 base level.

Estimates of cereal production were based on a simple econometric model, with deflated prices, lagged production, and a dummy variable to represent drought years as explanatory variables. The commercial import demand was assumed dependent on export earnings, production, food aid, and world cereal price. The expectation is that better production performance would lead to a decline in imports. Similarly, a solid financial position would translate into large imports to improve the nutritional status in these countries.

In view of complex production and financial variables, three scenarios were adopted: 1) the base scenario, in which countries' production and trade grow according to their historical growth path and weather is normal; 2) the optimistic scenario, in which significant policy changes are combined with a significantly better export market performance than would be projected from historical data; and 3) the crisis scenario, in which 2 years of drought occur at the end of the projected period--1989 and 1990--lowering production and export earnings.

The Base Scenario

The estimates for per capita cereal availabilities in the three scenarios net of food aid, are presented in table C. Based on trend projections, per capita cereal availabilities, net of food aid, will be 3 to 47 percent lower in 1990 than gross cereal availabilities in 1981-83 (in 1981-83, food aid is included). This means that to attain similar levels of cereal availability in 1990 as in 1981-83, most countries will have to depend on some food aid program, other factors remaining unchanged. (The exception is Sudan, which had the highest growth in production of cereals--4.0 percent annually--during 1966-83.)

Table C.--Per capita food gap projections, 1990

Country	Per capita, 1981-83		Per capita projected food avail., 1990		
	Food avail.	Food aid received	Base case	Optimistic scenario	Crisis scenario
	Kilograms				
Ethiopia	166	6	133	141	99
Kenya	134	10	122	146	96
Lesotho	204	21	148	181	134
Mali	132	8	108	129	85
Mozambique	64	11	34	37	27
Niger	187	6	181	206	145
Senegal	175	16	167	188	142
Somalia	108	34	78	94	69
Sudan	136	16	161	179	122
Zambia	188	15	158	180	124

The Optimistic Scenario

In the optimistic scenario, it was assumed that policy reforms would lead to a 3-percent annual increase in real producer prices over historical trends. An improvement in the economy would also lead to a significant gain in foreign exchange earnings--5 percent per year higher than historical trend.

Although the assumptions seem unrealistic given the past performance of these countries, the purpose of the exercise is to show the impact of a better performance in a few key economic variables. As the results show, in Kenya, Niger, Senegal, and Sudan, per capita cereal availabilities--net of food aid--would be 7 to 35 percent higher in 1990 than they were in 1981-83. This means that in these countries, commercial imports would be adequate to fill the chronic food gap.

In turn, under the optimistic conditions, Ethiopia, Lesotho, Mali, Somalia, and Zambia would provide more than 85 percent of their cereal needs from their own resources. Further, if these countries received per capita food aid at the 1981-83 level, per capita food availability would match or exceed the 1981-83 levels. Mozambique would be the only remaining country with a substantial food gap, and with current food aid allocations, per capita food availability would reach about 75 percent of the current level.

The Crisis Scenario

In the crisis scenario, food production was assumed to grow according to historical trend until 1989, and then 2 years of drought were assumed. The purpose of this exercise was to show that with poor food production, future drought could have a much more severe effect than even the historical experience.

The assumption was that drought would lead to a 30-percent decline in production (historically, a decline as high as 50 percent has been recorded). The 1989 production decline would be absorbed at country level by on-farm and central stock adjustments. However, most experts agree that in the second drought year, the effects would be felt at all levels.

Thus it was also assumed that in 1990, because of the earlier drought year, foreign exchange earnings would fall 1 percent below trend. The results show that in 1990 per capita cereal availabilities would decline from the 1981-83 base by 10 to 58 percent, with an aggregate decline of 30 percent. Mozambique's decline would be the most severe, at 58 percent. Given Mozambique's current low nutritional level (68 percent of required calories in 1981-83), a large part of the population would risk starvation.

Overall, to prevent per capita consumption from declining, the pattern of growth in such key variables as population, production, and export earnings will be crucial. Under present conditions, commercial imports alone are not expected to fill the chronic food gap. Furthermore, with the high probability of drought, emergency food needs are expected to compound the chronic food aid requirements.

Changing Cropping Patterns in Sudan's Gezira Scheme: A Means of Raising Food Production During Drought

Brian D'Silva
and
Nancy McKaig*

Abstract: In 1984, Sudan suffered its worst drought in recent history, requiring unprecedented food imports of over 1 million tons. Sudan's irrigated Gezira Scheme could be used to increase domestic food production, especially during drought. However, as drought would also affect irrigation water availability, increasing food production would require changes in cropping area allocations away from water-hungry cotton. This analysis shows that reducing cotton area by 200,000 acres could lead to increases in cereal output between 240,000 and 390,000 tons, depending upon the assumptions followed. Reallocating area would also lead to savings in water on both an annual and a seasonal basis.

Key words: Sudan, drought, irrigation, Blue Nile, Gezira Scheme, crop production, water use.

In 1984, Sudan--a country which in past years had been exporting food--suffered its worst drought in recent history. To make up for food production shortfalls, the country required over 1 million tons of food imports, mostly from the United States, either as emergency food aid or on concessional terms.

Underutilized Land

Sudan is the largest country in Africa and has a potentially cultivable area of 208 million acres. However, less than 10 percent is presently cultivated. Most of it is rainfed, but 4 million acres are under irrigation--the largest area in Sub-Saharan Africa. Ironically, while the irrigated subsector might have increased food output during the drought, the low level of the Blue Nile (which provides water for over 75 percent of the irrigated areas) meant that over 300,000 acres of wheat could not be planted in the 2.1-million-acre irrigated Gezira Scheme.

The nonplanting of wheat was related to the relationship among planned cropping patterns, dates of planting, crop-water requirements, and expectations of Blue Nile flow in the irrigated subsector. This paper focuses on effects of Blue Nile flow by analyzing alternative crop production scenarios in the Gezira Scheme and their implications for water use and food crop production in the irrigated subsector.

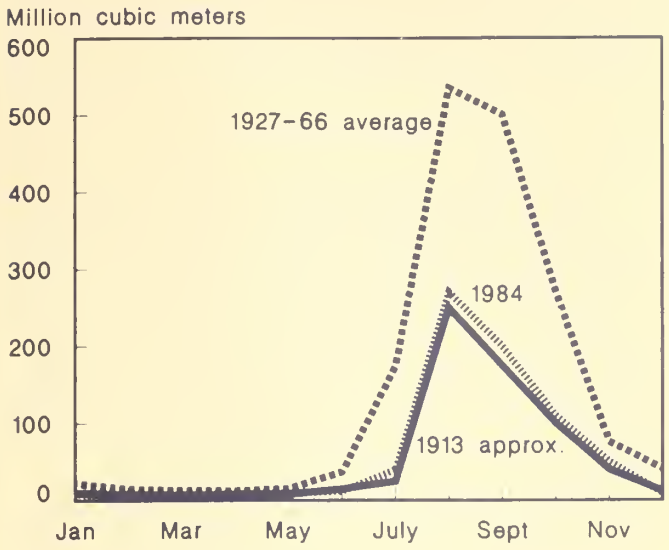
Agriculture in Three Subsectors

Sudanese agriculture is characterized by three subsectors: traditional rainfed, mechanized rainfed, and irrigated. All were severely affected by the 1984 drought. Cotton, groundnuts, wheat, sugarcane, and sorghum are the major crops grown in the irrigated areas. Historically, cotton has been the predominant crop because of its importance as a foreign exchange earner. Wheat and sugarcane are grown as import substitutes. Sorghum is used for tenants' food needs, and groundnuts are an export crop. While areas allocated to crops are usually predetermined within irrigated schemes, changing area allocations, especially for sorghum and wheat, has implications for food production and availability, in addition to Nile water use.

The large areas under irrigation are fed by the Nile System, which consists of the Blue, White, and Main Niles, all flowing through Sudan. The Blue Nile contributes nearly 80 percent of the flow of the Main Nile. Because the area the Blue Nile flows through is flat and has soil good for agriculture, over 75 percent of Sudan's irrigated agriculture is fed by the Blue Nile. This area is known as the Gezira clay plains.

*Economists, Economic Research Service, USDA

Blue Nile Flow at Khartoum



The Blue Nile flow usually peaks in August and September. In 1984, this peak level was the lowest in 50 years, approximating the 1913 level, the lowest ever recorded. The level of the Blue Nile directly affects water available for irrigation in the important months from October through February.

The Gezira Scheme

Sudan's Gezira Scheme has been called "the largest farm in the world under one management." It covers nearly 60 percent of the area irrigated by the Blue Nile, produces over 50 percent of Sudan's cotton, 70 percent of its wheat, 10 percent of its groundnuts, and 5 percent of its sorghum. The origins of the scheme date back to the 1920's when construction of the dam on the Blue Nile at Sennar made large-scale irrigation possible. The original or Main Gezira covers 1.1 million acres, while the Managil Extension, which was started in the late 1950's, covers 1.0 million.

The early history of Gezira was dominated by cotton production, but the cropping pattern has gradually diversified. Furthermore, not all of the area is under cultivation, and the cropping intensity does not exceed 75 percent. As the Gezira Scheme is irrigated by gravity, a major constraint to increasing area under cultivation is the capacity of the main irrigation canals, which start at Sennar.

Organization of Production

Over 100,000 tenants farm in the Gezira Scheme. The average size of tenancy is 15 acres in the Managil Extension and 20 acres in the Main Gezira. The scheme management determines cropping patterns. For example, in the Main Gezira, 5 acres are planted to cotton, 5 to wheat, 5 left fallow, and the tenant decides on whether to plant the remaining 5 acres to sorghum or groundnuts. A similar situation exists for the Managil Extension, except that there is no fallow. All major activities related to the production of cotton and wheat, with the exception of weeding and harvesting, are the responsibility of the scheme. Hence, tenants have minimal choice in deciding what crops to grow, how much to plant, and the timing of operations, such as planting.

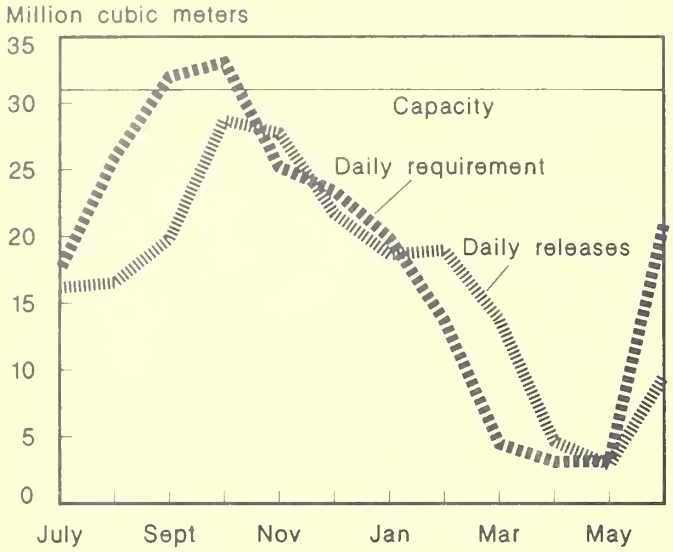
Part of the reason for the present organization of production is the scheme's historical role in generating foreign exchange through cotton exports, and the management of irrigation. In the past, irrigated schemes such as Gezira have never been viewed as a source of food. However, changes in rainfall patterns, the low level of the Blue Nile, and shifting economic conditions, such as devaluations, have suggested that the irrigated schemes' role in the national economy must be reevaluated.

Similarly, since cotton and wheat prices are set by the Government, the entire impact of devaluation as a producer incentive is not necessarily transmitted to the tenant, since the Government may not raise producer prices as much as the amount of the devaluation. The lack of flexibility in the tenant decisionmaking process, and rigidity of institutional control, have led to considerable debate over the present organization of production.

Changing Crop Area Allocations

Annual crop water requirements depend on crop area allocations within the Gezira Scheme. Using actual cropping area allocations for 1966/67 to 1984/85, we analyzed monthly and annual water requirements. The monthly average of these requirements is in the accompanying graph.

Gezira Water Use



Because water for the Gezira Scheme comes from the Sennar Dam, we also analyzed water releases from Sennar by month for 1969/70 to 1979/80.* The releases from Sennar have two important characteristics. First, they have been below the capacity of the main canals, which is appropriate, since releasing water at full capacity would damage the canal structure and could cause water losses. The second characteristic is related to crop water requirements from October through February. As seen in the accompanying chart, there is a very strong correlation between releases and crop water requirements for this time period, a fact verified by statistical analysis, which showed correlation coefficients of .99.

However, comparing crop water requirements and water releases on an aggregate (scheme) level showed that the average daily requirement exceeded canal capacity for the months of September and October in all but 3 of the last 19 years. The releases are crucial for October through February.

This suggests that during these times, water shortages have existed which could have seriously affected crop production. Furthermore, any changes in cropping patterns within the scheme should take into consideration the question of main canal capacity in the Gezira Scheme.

*The system of equating water demand and supply is known as 'indenting.' Estimates of needs are made by individuals in the scheme and are sent to the Ministry of Irrigation, which then releases water into the canal network.

Impact on Crop Water Requirements

Using actual area planted, the 1984/85 crop water requirements are shown in the chart and are contrasted with crop water requirements of the *intended* cropping pattern for 1984/85. The 1984/85 intended area allocation is used as a base to analyze the effect of alternative area allocations on water requirements. While it is too early to determine the the flow of the Blue Nile in 1985/86, we analyze implications of alternative area allocations. Four alternatives are modeled for the Gezira Scheme.

Alternative I: Extra long staple cotton area is reduced by 100,000 acres and medium staple cotton area is also reduced by 100,000 acres. This land is reallocated equally to wheat and sorghum. The assumption is that water levels in the Blue Nile would increase, allowing the planting of wheat, so that domestic wheat production could be increased.

Alternative II: Cotton area is reduced as in alternative I, but all 200,000 acres are planted to sorghum. Here the assumption is that sorghum output needs to be increased because of the food situation, and the Nile level may not rise sufficiently to allow increased cultivation of wheat.

Alternative III: In addition to reducing cotton area, the wheat area is reduced by 100,000 acres and, hence, sorghum area is increased by 300,000 acres. This reflects high priority on increasing sorghum production in the irrigated sector and reduced flow of the Blue Nile.

Alternative IV: In addition to reducing cotton area, as in alternative I, no wheat is planted, and both the wheat and cotton area is planted to sorghum, thereby increasing sorghum area by 500,000 acres, double the 1984/85 intended plantings. This reflects the need to increase food production in the irrigated areas due to continued drought in the rainfed areas.

The results of these alternative scenarios on water requirements are shown in table A. Under all but alternative IV, the change in overall annual water requirements shows a savings of 6.0 percent. When the water requirements are analyzed for the crucial October-February period, a more detailed picture emerges. Sorghum area increases made by decreasing cotton raise water requirements for September in three of the four alternatives, especially alternative IV, which requires over 33 percent more water than the base run. But, for all the other months we see a savings in water under all four alternatives, with the greatest savings coming in December, January, and February for alternatives III and IV.

Clearly, alternative IV is infeasible not only because of the increased water requirements in September, but also because the September requirements are greater than the canal capacity by nearly 30 percent. September water requirements for alternatives II and III are also greater than canal capacity, but this area of sorghum could be supported by delayed planting, especially if there are sufficient rains. An optimal sorghum area, given other crop areas in III, would be 600,000 acres if we are concerned with September water requirements.

Impact on Domestic Food Production

Changing crop area allocations within the Gezira Scheme has implications for domestic food production and foreign exchange earnings. Table B shows the impact of changing crop area allocations on food production. Here wheat yields are assumed to be 0.5 ton per acre. A new hybrid sorghum is available in Sudan which has, under irrigated conditions in the Gezira, yielded 2.1 tons per acre, compared with 0.45 tons per acre for the traditional variety. Assuming that sufficient hybrid sorghum seed exists to plant 100,000 acres under irrigated conditions in 1985. Our analysis shows the impact of growing all 100,000 acres in the irrigated sector, or growing 50,000 acres under irrigated

Gezira Daily Water Requirements Under Different Scenarios

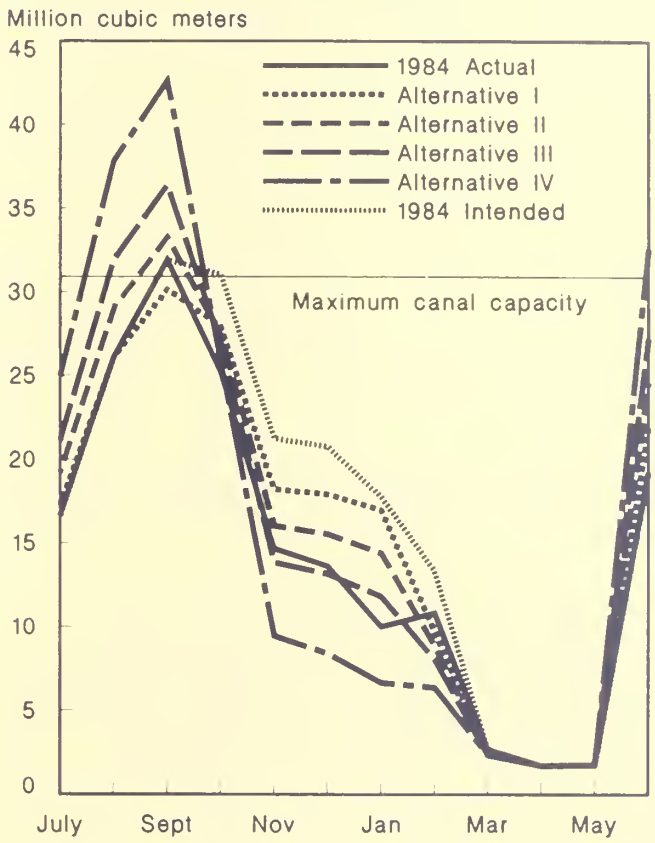


Table A.--Water requirements in the Gezira Scheme under alternative assumptions

	Annual	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
			Million cubic meters				
INTENDED USE, 1984/85	6,218	957	859	637	643	526	373
CHANGE FROM INTENDED USE			Percent				
Actual use, 1984/85	-13.16	0.00	-8.90	30.90	34.30	-40.8	-18.80
Alternative I	-6.52	-5.86	-15.13	-14.28	13.70	0.0	-27.07
Alternative II	-4.89	+4.28	-13.03	-24.48	-25.00	-15.2	-33.51
Alternative III	-3.27	+14.00	-11.05	-34.85	-36.50	-69.5	-39.70
Alternative IV	0.00	+33.50	-6.86	-55.50	-59.56	-60.80	-52.01

Table B.--Impact of alternative cropping patterns on food crop production in the Gezira Scheme

	Wheat area	Local sorghum area	Hybrid sorghum area	Wheat prod.	Sorghum prod.	Total cereal prod.	Change in cereal prod. from 1984/85 intended	
	------- Acres ------			------ Tons -------			Tons	Percent
1984/85 intended	300,000	500,000	--	150,000	225,000	375,000		
1984/85 actual	--	490,000	10,000	--	270,000	270,000	-105,000	-28
Alt. I								
A*	400,000	500,000	100,000	200,000	435,000	635,000	+260,000	69
B	400,000	550,000	50,000	--	352,000	552,000	+365,000	135
Alt. II								
A*	300,000	600,000	100,000	150,000	510,000	660,000	+285,000	76
B	300,000	650,000	50,000	--	397,000	547,000	+390,000	144
Alt. III								
A*	200,000	700,000	100,000	100,000	525,000	632,000	+250,000	6.6
B	200,000	750,000	50,000	--	442,000	542,000	+365,000	135
Alt. IV								
A*	--	900,000	100,000	--	615,000	615,000	+240,000	68
B	--	950,000	50,000	--	532,000	532,000	+355,000	131

*A=hybrid sorghum assumed planted on 100,000 irrigated acres.; B=hybrid sorghum assumed planted on 50,000 irrigated acres.

conditions and 50,000 under rainfed, mechanized conditions, where yields of up to 1.5 tons per acre can be achieved.

While all alternatives show increased cereal output, alternative II leads to the greatest increase, with a range of 285,000 to 390,000 tons, depending upon the assumption concerning area allocated to hybrid sorghum in the irrigated subsector. The potential increases under alternatives I and III differ by only 10,000 tons, with I being larger. Furthermore, the cropping patterns in I and II, as well as III, all include wheat, which will probably be grown in Gezira, since wheat seed from last season is available. Utilizing the data in table A for water use, alternatives I and II are definitely preferable to III, with I being the more preferable because of water saved for September–February, as well because of lower overall water requirements.

Reallocation of area within Gezira would also affect foreign exchange earnings, as lower cotton output resulted in reduced cotton exports. However, at present, the world cotton market is soft, and Sudan has also had problems marketing its cotton. Currently, nearly 900,000 bales of the 1984/85 crop are still awaiting export, and unless cotton marketing efficiency improves, the prospects for increased cotton export sales remain uncertain.

Increased food production should allow a reduction in both commercial and concessional food imports for Sudan. The 1984/85 production shortfall led to a quadrupling of domestic sorghum prices. Increased domestic output should lead to lower prices and increase consumers' ability to purchase sorghum, while at the same time reducing food aid needs.

Reallocating area within Gezira, and reducing water requirements of the Blue Nile, could increase water availability for other schemes downstream, both in the Blue Nile System and along the Main Nile. This could increase food production along other parts of the Nile System within Sudan.

Table 1. Total U.S. agricultural exports to Sub-Saharan Africa, by value and quantity, for selected items, 1983 and 1984

Destination	Total		Wheat and wheat flour		Corn		Rice		Inedible tallow		Soybean oil	
	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984
	Thousand dollars											
VALUE												
Angola	12,283	17,810	0	0	0	0	221	52	1,991	2,614	189	909
Benin	6,401	8,766	5	0	0	0	323	2,448	0	0	214	485
Botswana	2,758	3,934	0	0	0	1,723	0	0	0	0	60	1,221
Burkina	9,570	14,526	77	262	0	0	17	2,038	0	0	2,951	3,394
Burundi	1,149	5,018	0	1,107	0	0	0	0	0	0	186	998
Cameroon	6,486	5,478	80	0	0	0	17	31	1,249	1,108	90	112
CAR	476	339	0	0	0	0	0	4	0	0	0	0
Chad	2,409	3,618	0	0	422	0	0	1,415	0	0	351	467
Congo (Brazzav.)	631	1,936	0	0	0	0	9	589	0	0	0	0
Djibouti	2,171	3,965	0	0	0	0	833	3,060	0	0	434	275
Ethiopia	7,054	21,088	0	3,698	76	7	0	25	0	0	1,504	6,420
Gabon	1,789	753	0	0	0	0	1,496	713	0	0	1	0
Gambia	937	4,153	0	580	0	0	226	2,534	0	0	212	577
Ghana	23,497	24,454	50	0	9,642	45	332	1525	1,443	1,760	1,712	6,014
Guinea	7,591	9,124	0	132	12	0	5,842	6,500	0	0	231	269
Ivory Coast	5,215	7,998	1	0	8	0	1,576	2,346	0	0	548	832
Kenya	24,886	23,012	12,613	4,743	0	7,251	4,863	608	957	1,638	1,783	1,486
Lesotho	6,249	10,928	2,058	3,069	0	0	13	0	0	0	1,024	2,951
Liberia	34,445	34,456	1,363	2,907	15	11	28,005	27,025	127	0	77	29
Madagascar	9,412	13,604	0	793	0	0	7,282	9,670	0	0	1,316	2,347
Malawi	1,157	586	0	0	0	0	0	0	1,147	481	0	93
Mali	2,916	9,742	0	303	0	806	1,462	6,268	0	0	0	335
Mauritania	8,360	16,235	4,520	1,732	0	0	32	70	0	0	593	685
Mauritius	6,402	6,133	993	301	0	0	2,364	24	0	0	2,191	4,813
Mozambique	9,736	12,186	1,337	0	3,384	6,254	4,345	0	0	0	83	0
Niger	1,528	1,110	102	8	10	0	0	10	0	0	0	0
Nigeria	334,433	349,050	214,893	256,012	5,497	13,236	56,944	10,180	13,859	19,760	346	261
Rwanda	3,074	5,208	1,115	131	0	419	332	531	0	0	204	1,377
Senegal	12,527	35,752	37	710	0	2,401	3,648	748	0	1,044	882	1,185
Sierra Leone	5,888	6,046	565	2,358	184	0	2,998	1,452	0	0	682	656
Somalia	23,662	32,561	4,818	6,717	3,244	3,498	5,386	5,500	0	68	7,494	10,129
South Africa	248,117	481,339	328	4,851	126,508	366,140	56,624	52,560	8,446	5,152	627	3,593
Sudan	59,260	61,666	49,638	52,078	0	13	185	84	5,724	4,470	0	185
Tanzania	11,213	8,350	3,252	60	0	0	5,015	114	139	424	1,159	3,612
Togo	7,259	6,891	2,549	1,690	102	219	648	414	0	0	1,023	890
Uganda	37	220	0	0	0	0	0	0	0	0	0	0
Zaire	18,005	17,238	16,301	12,997	8	848	188	2,155	0	0	0	0
Zambia	13,515	15,700	6,169	2,686	0	4,803	1,819	2,452	0	0	5,229	5,492
Zimbabwe	4,743	7,906	1,641	0	0	5990	0	16	282	815	2,456	0
Total 1/	937,241	1,288,879	324,505	359,935	149,112	413,664	193,045	143,201	35,364	39,334	35,852	62,092
VOLUME												
Angola			0	0	0	0	497	175	4,478	4,624	258	901
Benin			20	0	0	0	350	12,348	0	0	266	480
Botswana			0	0	0	11,373	0	0	0	0	81	1,085
Burkina			313	1,642	0	0	16	10,192	0	0	3,224	3,644
Burundi			0	6,520	0	0	0	0	0	0	222	980
Cameroon			499	0	0	0	48	53	3,010	2,094	91	120
Chad			0	0	3,000	0	0	5,000	0	0	353	500
Congo (Brazzav.)			0	0	0	0	18	2,139	0	0	0	0
Djibouti			0	0	0	0	2,246	9,051	0	0	591	289
Ethiopia			0	24,759	765	109	0	72	0	0	1,772	6,774
Gabon			0	0	0	0	2,949	1,555	0	0	0	0
Gambia			0	2,684	0	0	723	8,937	0	0	254	600
Ghana			233	89	66,189	169	732	5,276	3,461	2,520	2,109	6,022
Guinea			0	598	92	0	18,726	22,219	0	0	241	280
Ivory Coast			2	0	95	0	2,919	6,684	0	0	534	890
Kenya			80,836	29,998	0	51,291	14,193	2,134	2,090	3,275	1,960	1,577
Lesotho			12,146	18,445	0	0	59	0	0	0	1,337	3,105
Liberia			8,412	17,924	103	71	80,873	81,336	275	0	79	22
Madagascar			0	3,448	0	0	24,472	33,465	0	0	1,954	2,634
Malawi			0	0	0	0	0	0	2,706	965	0	100
Mali			0	1,699	0	4,868	5,101	28,436	0	0	0	351
Mauritania			31,362	10,589	0	0	100	286	0	0	926	726
Mauritius			3,782	1,361	0	0	7,870	73	0	0	5,249	7,449
Mozambique			8,002	0	22,551	38,736	14,930	0	0	0	99	0
Niger			623	36	0	0	0	18	0	0	0	0
Nigeria			1,316,491	1,617,316	39,577	86,695	124,168	22,463	30,897	38,282	485	245
Rwanda			5,300	632	0	2,503	1,099	1,805	0	0	290	1,475
Senegal			156	4,827	0	14,999	11,293	3,376	0	2,193	966	1,222
Sierra Leone			3,212	14,391	1,002	0	10,012	5,882	0	0	856	686
Somalia			20,583	34,109	23,519	20,529	18,807	18,791	0	102	13,003	10,622
South Africa			1,292	31,856	868,226	2,528,600	143,032	129,317	21,033	10,040	685	4,317
Sudan			296,815	308,977	0	71	600	304	14,173	10,555	0	200
Tanzania			17,080	182	0	0	15,361	394	70	271	2,450	3,941
Togo			15,926	11,783	773	1,395	1,295	826	0	0	1,308	910
Uganda			0	0	0	0	0	0	0	0	0	0
Zaire			95,208	81,208	45	5,034	594	8,060	0	0	0	0
Zambia			36,596	17,421	0	32,743	6,286	6,952	0	0	10,876	8,537
Zimbabwe			10,200	0	0	43,096	0	82	600	1,526	5,000	0
Total			1,965,089	2,242,534	1,025,937	2,842,282	509,369	427,701	82,793	76,449	57,519	70,684

1/ All U.S. exports (agricultural and nonagricultural) to Sub-Saharan Africa totaled $4.343 billion in 1983 and $4.411 billion in 1984.

Source: Bureau of the Census

Table 2. U.S. agricultural imports from Sub-Saharan Africa, by value and quantity, for selected items, 1983 and 1984

Source	Total		Coffee		Sugar		Cocoa and products		Tea		Tobacco	
	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984
	Thousand dollars											
VALUE												
Angola	4,018	873	4,010	873	0	0	0	0	0	0	0	0
Benin	0	0	0	0	0	0	0	0	0	0	0	0
Botswana	103	87	0	0	0	0	0	0	0	0	0	0
Burkina	0	10	0	0	0	0	0	0	0	0	0	0
Burundi	2,748	1,573	2,748	1,573	0	0	0	0	0	0	0	0
Cameroon	28,317	20,975	20,451	14,064	0	0	1,759	1,558	0	0	6,107	5,353
CAR	250	1,170	0	931	0	0	0	0	0	0	247	239
Comoros	3,854	2,127	0	0	0	0	0	0	0	0	0	0
Congo (Brazzav.)	0	3,448	0	0	0	3,448	0	0	0	0	0	0
Ethiopia	86,549	81,716	79,621	73,513	0	0	0	0	0	0	0	0
Gambia	0	1	0	0	0	0	0	0	0	0	0	0
Ghana	26,708	17,542	0	0	0	0	26,347	17,542	0	0	0	0
Guinea	6,558	1,939	6,533	1,713	0	0	0	226	0	0	0	0
Ivory Coast	284,950	403,743	95,376	178,789	14,351	0	173,827	223,756	0	0	0	0
Kenya	61,282	57,092	38,890	28,539	0	255	79	0	10,195	13,931	0	0
Lesotho	45	173	0	0	0	0	0	0	0	139	0	0
Liberia	50,371	65,581	5,454	3,103	0	0	0	0	0	0	0	0
Madagascar	66,574	64,467	18,461	13,337	6,301	6,920	0	0	0	0	0	0
Malawi	22,451	23,367	0	43	1,150	10,373	0	0	2,469	3,046	0	0
Mali	5	59	0	0	0	0	0	37	0	0	18,5340	9,686
Mauritania	75	12	0	0	0	0	0	0	48	0	0	0
Mauritius	15,701	15,820	0	0	12,796	14,236	0	0	464	624	0	0
Mozambique	27,759	23,548	0	0	11,551	10,442	0	0	4,357	3,714	0	0
Niger	203	0	0	0	0	0	0	0	0	0	0	0
Nigeria	27,955	20,857	0	756	0	0	24,623	16,854	0	0	0	0
Rwanda	28,291	15,686	26,347	12,420	0	0	0	0	1,433	2,299	0	0
Senegal	65	223	0	0	0	0	0	0	0	0	0	0
Sierra Leone	14,937	22,560	14,545	0	0	0	0	0	0	0	0	0
Somalia	4	554	0	0	0	554	0	0	0	0	0	0
South Africa	86,043	117,213	2,508	0	11,052	30,869	94	1,292	429	944	4,640	2,298
Sudan	3,837	4,169	0	0	0	1,790	0	0	0	0	0	0
Swaziland	12,161	21,174	0	0	12,161	20,827	0	0	0	0	0	0
Tanzania	8,594	9,781	2,093	1,704	0	433	0	0	495	1,074	255	226
Togo	19,775	33,976	19,775	33,974	0	0	0	0	0	0	0	0
Uganda	103,811	92,544	103,597	92,473	0	0	0	0	16	50	0	0
Zaire	4,407	3,419	2,777	1,990	0	0	0	0	194	0	0	0
Zambia	456	9	0	0	0	0	0	0	38	0	386	0
Zimbabwe	22,519	23,134	3,911	4,008	12,298	15,778	0	0	377	496	5,900	2,698
Total 1/	1,021,376	1,150,622	447,097	468,048	81,660	115,925	226,729	261,265	20,515	26,317	36,069	20,500
VOLUME												
Angola			1,608	300	0	0	0	0	0	0	0	0
Benin			0	0	0	0	0	0	0	0	0	0
Botswana			0	0	0	0	0		0	0	0	0
Burkina			0	0	0	0	0	0	0	0	0	0
Burundi			1,059	524	0	0	0	0	0	0	0	0
Cameroon			9,416	4,861	0	0	1,212	878	0	0	908	774
CAR			0	335	0	0	0	0	0	0	24	24
Comoros			0	0	0	0	0	0	0	0	0	0
Congo (Brazzav.)			0	0	0	7,258	0	0	0	0	0	0
Ethiopia			31,119	25,403	0	0	0	0	0	0	0	0
Gambia			0	0	0	0	0	0	0	0	0	0
Ghana			0	0	0	0	15,327	6,885	0	0	0	0
Guinea			2,695	726	0	0	0	100	0	0	0	0
Ivory Coast			40,413	68,612	53,377	0	109,700	102,432	0	0	0	0
Kenya			15,796	10,289	0	4301	38	0	4,536	3,932	0	0
Lesotho			0	0	0	0	0	0	0	46	0	0
Liberia			2,333	1,164	0	0	0	0	0	0	0	0
Madagascar			7,560	5,014	14,496	14,288	0	0	0	0	0	0
Malawi			0	15	4,936	32,492	0	0	1,288	914	4,680	3,313
Mali			0	0	0	0	0	18	0	0	0	0
Mauritania			0	0	0	0	0	0	27	0	0	0
Mauritius			0	0	27,207	30,467	0	0	259	227	0	0
Mozambique			0	0	25,642	25,020	0	0	3,539	2,244	0	0
Niger			0	0	0	0	0	0	0	0	0	0
Nigeria			0	276	0	0	17,074	6,276	0	0	0	0
Rwanda			9,884	4,085	0	0	0	0	678	712	0	0
Senegal			0	0	0	0	0	0	0	0	0	0
Sierre Leone			6,299	8,385	0	0	0	0	0	0	0	0
Somalia			0	0	0	7,612	0	0	0	0	0	0
South Africa			1,015	0	42,995	73,525	84	1,079	229	295	1,610	1,055
Sudan			0	0	0	33,606	0	0	0	0	0	0
Swaziland			0	0	36,303	43,070	0	0	0	0	0	0
Tanzania			799	558	0	7,336	0	0	258	354	157	298
Togo			7,991	11,982	0	0	0	0	0	0	0	0
Uganda			43,740	34,194	0	0	0	0	10	21	0	0
Zaire			1,330	745	0	0	0	0	122	0	0	0
Zambia			0	0	0	0	0	0	19	0	122	0
Zimbabwe			1,528	1,320	30,544	38,337	0	--	213	235	1,635	944
Total			184,585	178,788	235,500	317,312	143,435	117,668	11,178	8,980	9,136	6,408

1/ All U.S. imports (agricultural and nonagricultural) from Sub-Saharan Africa totaled $10.519 billion in 1983 and $10.463 billion in 1984.

Source: Bureau of the Census

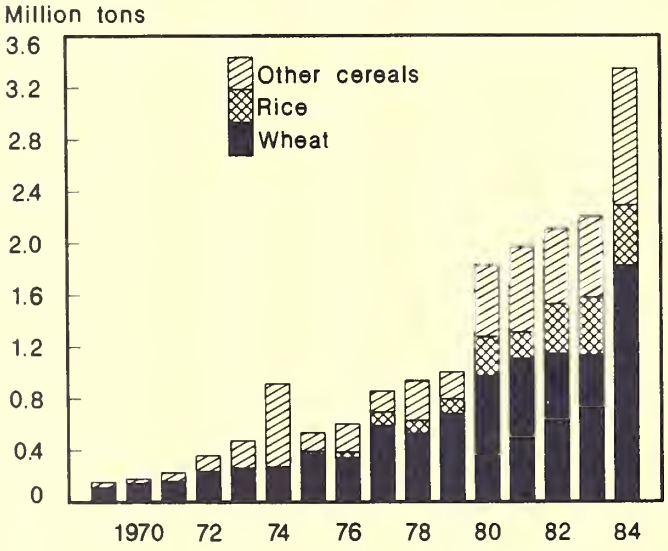
Table 3.--Indices of agricultural and food production in Sub-Saharan Africa, total and per capita, 1980-1984

Country	1980	1981	1982	1983	1984	1980	1981	1982	1983	1984
					1976-78=100					
	Total agricultural production					Per capita agricultural production				
Angola	100	93	95	93	93	89	80	80	77	75
Benin	98	98	101	96	111	89	87	87	80	90
Burkina	104	117	114	113	112	98	108	103	100	96
Burundi	105	119	111	117	109	97	107	98	100	91
Cameroon	108	108	113	100	115	99	96	99	85	95
Ethiopia	111	109	118	118	111	109	106	113	110	101
Ghana	105	101	96	89	105	94	89	81	72	83
Guinea	100	99	106	104	109	92	88	93	88	90
Ivory Coast	136	133	131	111	145	120	113	107	87	109
Kenya	108	114	116	121	123	95	96	94	94	92
Liberia	107	108	104	112	119	97	95	89	92	95
Madagascar	104	102	104	106	106	96	91	90	90	87
Malawi	107	111	122	121	124	98	98	105	100	100
Mali	78	88	85	83	78	72	80	75	72	67
Mozambique	108	111	111	87	96	99	100	97	74	79
Niger	121	116	117	117	88	110	102	100	96	70
Nigeria	113	112	114	100	114	102	98	96	82	90
Rwanda	112	116	118	123	115	100	100	98	99	89
Senegal	80	110	115	87	98	72	96	98	72	78
Sierra Leone	99	98	100	104	96	92	89	88	90	81
Rep. So. Africa	107	119	107	94	102	99	107	94	81	85
Sudan	93	108	95	99	94	84	95	80	81	75
Tanzania	109	114	117	112	110	99	101	100	93	88
Togo	116	122	111	116	126	106	108	96	97	102
Uganda	91	97	106	113	121	84	87	93	95	93
Zaire	106	112	116	119	122	97	100	101	101	100
Zambia	97	115	105	113	115	88	101	90	93	92
Zimbabwe	98	105	101	93	109	90	93	87	77	87
Sub-Saharan Africa	108	112	112	106	113	99	100	97	89	92
Sub-Sahara less Rep. So. Africa	108	111	113	108	114	99	99	98	91	93
	Total food production					Per capita food production				
Angola	105	99	102	102	101	94	86	87	85	81
Benin	98	99	100	96	110	90	87	86	80	89
Burkina	101	116	114	111	109	95	107	102	98	94
Burundi	106	111	112	113	108	98	100	98	96	90
Cameroon	106	106	110	103	112	97	95	96	87	92
Ethiopia	113	110	121	119	106	111	107	116	111	97
Ghana	105	101	96	89	105	95	89	81	72	83
Guinea	100	99	106	103	109	93	89	93	88	90
Ivory Coast	133	141	136	129	150	118	120	111	101	113
Kenya	105	110	119	120	109	93	93	97	94	82
Liberia	110	111	113	118	125	99	97	96	97	99
Madagascar	103	101	103	106	106	95	90	90	90	87
Malawi	108	113	121	121	122	98	100	104	100	98
Mali	76	90	81	79	75	70	82	72	69	64
Mozambique	108	111	111	87	95	99	99	96	74	78
Niger	122	116	118	117	88	111	102	100	97	70
Nigeria	113	113	115	101	114	102	98	97	82	90
Rwanda	112	116	117	123	115	100	100	98	99	89
Senegal	80	110	115	87	98	73	97	98	72	78
Sierra Leone	100	97	98	103	95	92	88	86	89	80
Rep. So. Africa	106	120	107	92	101	99	109	94	79	85
Sudan	97	115	92	92	84	87	100	78	76	67
Tanzania	111	118	123	116	116	101	104	105	96	93
Togo	114	119	107	112	112	105	106	92	94	99
Uganda	94	101	108	112	120	86	90	94	95	99
Zaire	106	113	117	120	122	98	101	101	101	100
Zambia	94	115	106	112	111	85	101	90	92	89
Zimbabwe	87	107	100	86	94	80	94	86	71	76
Sub-Saharan Africa	108	113	113	106	112	99	101	98	89	92
Sub-Sahara less Rep. So. Africa	108	112	113	108	113	99	100	98	91	92

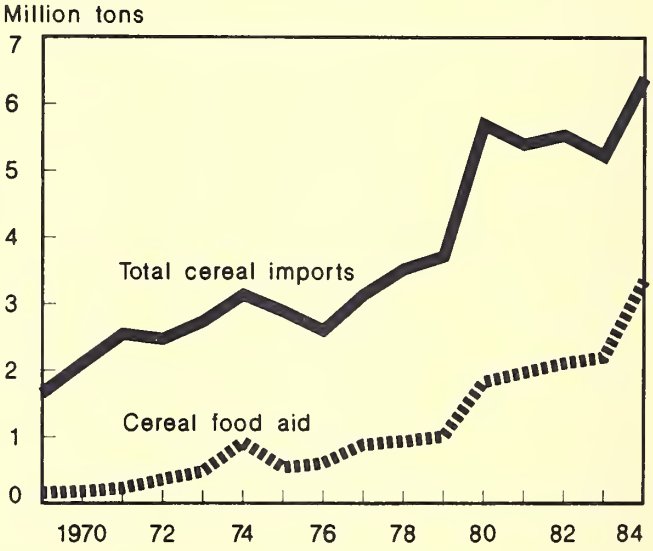
Table 4.--Food aid and total cereal imports for 23 African countries, 1969-71 and 1982-84

Country	1969-71			1982-84		
	Total imports	Food aid	Ratio of food aid to total imports	Total imports	Food aid	Ratio of food aid to total imports
	---1000 tons----		Percent	------1000 tons---		Percent
Angola	92.7	0.0	0.0	303.6	46.3	15.3
Benin	20.5	0.0	0.0	84.6	14.3	16.9
Burkina	33.6	3.2	9.5	138.7	65.0	46.9
Cape Verde	35.9	0.0	0.0	61.3	49.6	80.9
Chad	9.7	0.0	0.0	87.0	69.7	80.1
Ethiopia	62.0	8.4	13.5	408.1	326.3	80.0
Ghana	136.6	60.7	44.4	271.6	69.1	25.4
Kenya	33.8	1.7	5.0	270.8	138.7	51.2
Lesotho	46.4	0.7	1.5	165.3	44.3	26.8
Liberia	61.9	2.7	4.4	119.6	42.3	35.4
Madagascar	75.6	1.5	2.0	316.1	95.3	30.1
Mali	43.8	17.5	40.0	216.7	85.3	39.4
Mauritania	65.7	2.9	4.4	258.0	110.7	42.9
Mozambique	110.9	0.0	0.0	393.5	268.4	68.2
Niger	16.2	11.2	69.1	79.0	27.3	34.6
Senegal	367.5	21.2	5.8	600.4	143.0	23.8
Sierra Leone	62.7	4.2	6.7	121.0	22.0	18.2
Somalia	78.9	10.0	12.7	313.7	221.7	70.7
Sudan	202.5	14.6	7.2	462.0	257.7	55.8
Tanzania	70.7	6.0	8.5	298.2	214.3	71.9
Zaire	190.3	19.8	10.4	294.5	84.0	28.5
Zambia	198.5	0.4	0.2	218.8	102.2	36.3
Zimbabwe	83.0	0.0	0.0	168.2	52.4	31.2
TOTAL	2099.4	186.7	8.9	5713.7	2549.9	44.6

Food Aid to 23 African Countries, by Commodity, 1970-84



Totai Cereai imports and Food Aid for 23 African Countries, 1969-84



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